

# KV-X2552U/X2952U

## RM-816

## SERVICE MANUAL

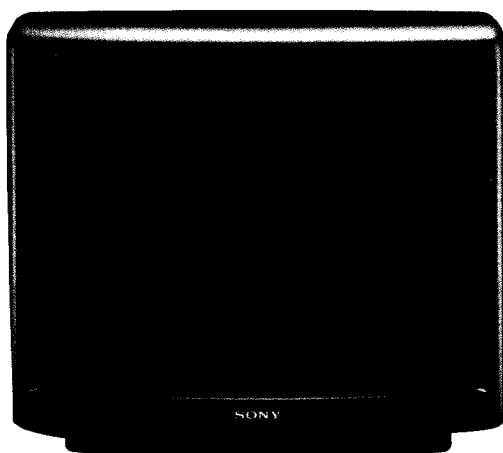
*UK Model*

KV-X2552U

Chassis No. SCC-E23P-A

KV-X2952U

Chassis No. SCC-E23Q-A



## AE-1C CHASSIS

### MODELS OF THE SAME SERIES

KV-X2552U/X2952U	KV-E2522U/E2922U
KV-C2552U/C2952U	KV-C2122U
KV-A2112U/A2512U	

### SPECIFICATIONS

#### 【KV-X2552U/X2952U】

Television system	I
Colour system	PAL
Stereo system	NICAM stereo
Channel coverage	UHF: B21-B69
Picture tube	HI-Black Trinitron tube
	Approx. 63 cm (25 inches)
	(Approx. 59 cm picture measured diagonally)
	110 ° degree deflection
	Approx. 72 cm (29 inches)
	(Approx. 68 cm picture measured diagonally)
	110 ° degree deflection

#### Inputs Outputs Terminals

##### REAR

21 pin Euro connector (CENELEC standard)	-Inputs for audio and video signals -Inputs for RGB -Outputs of TV video and audio signals
2/21-pin Euro connector	-Inputs for audio and video signals -Inputs for S-video -Outputs for video and audio signals (selectable)

Audio output(variable) -phono jacks

Video input phono jack

Audio inputs (L,R) phono jacks

S-video Inputs-4pin DIN

Headphone jack : stereo mini jack

Sound output 30 W + 30 W

Power consumption 158W (KV-X2552U)

173W (KV-X2952U)

Dimensions incl.speakers Approx. 575×488×487 mm (w/h/d)  
(KV-X2552U)

Approx. 656×560×518 mm (w/h/d)  
(KV-X2952U)

- Continued on next page -



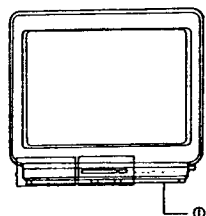
# TRINITRON® COLOUR TV

# SONY®



# SECTION 1 GENERAL

## 1-1. SWITCHING ON/OFF




After you have completed the basic preparation your TV is ready to be connected to the mains power supply (220/240V AC, 50Hz).

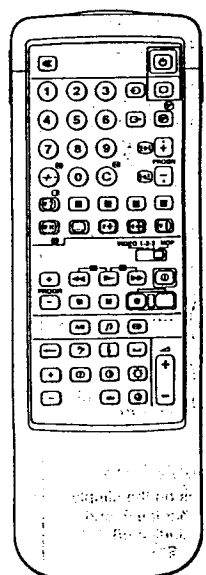


### How to turn the TV on

Action	Result
Press  on the TV.	The TV will turn on. <b>Note:</b> If the screen remains blank, the TV may be in the standby mode. Press  or any number button on the commander to switch it on.

### How to turn the TV off

A Temporarily	
Press  to enter standby mode.	The TV will be in standby. To return to the TV mode press  .
B Completely	
Press  on the TV.	The TV will turn off.



## 1-2. PRESETTING

After you have installed the TV you need to preset TV channels.

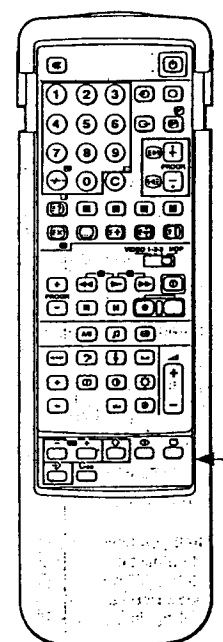
TV stations broadcast their channels at certain frequencies. You must preset these channels to programme numbers on the TV before you can watch the TV programmes.

There are 60 spaces for storing these channels.


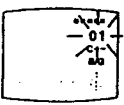
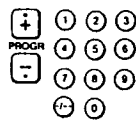




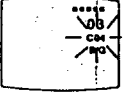





Slide open the full function side of the remote commander to reveal preset buttons.

### How to preset channels automatically

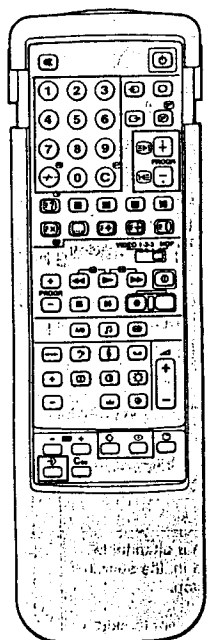
If you are unfamiliar with the channel numbers of the stations you wish to preset, use "How to preset channels automatically". If you are familiar with the channel numbers refer to "How to preset T.V. channels directly".



**Note:** These buttons should be used in preset mode only.

Action	Result
<b>1</b> Press  to enter the preset mode.	 The programme number will start flashing.
<b>2</b> Press <b>PROGR</b> + or - or the number buttons to select the programme number to which you want to preset a channel.    <b>Note</b> To select a double-digit number, use the  button. For example, if you want to choose 23, press  , 2, and then 3.	 The programme number changes
<b>3</b> Press  + or - once to search forward or backward for channels.	 When a channel is tuned in, the search will stop. <b>Note</b> If you want to skip a channel, press  + or  .
<b>4</b> Press  if you want to store the channel which is tuned in. Press  to exit preset mode without storing.	 The channel is now stored and you have returned to TV mode.
<b>5</b> Repeat steps 1 to 4 to store the other channels.	

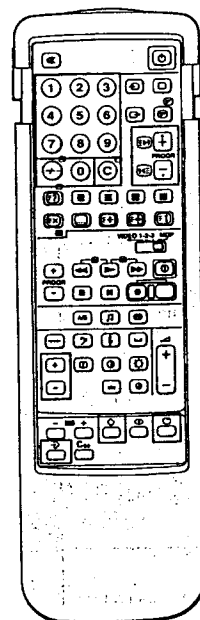
### How to preset channels directly



Action	Result
<b>1</b> Press $\rightarrow$ to enter the preset mode. 	The programme number will start flashing.
<b>2</b> Press PROGR +/- or the number buttons to select the programme number on which you want to preset a channel. <p><b>Note</b> To select a double-digit number, use the -/-- button. For example, if you want to choose 23, press -/--, 2, and then 3.</p>	The programme number changes.
<b>3</b> Press C. 	The indication "C--" starts flashing on the display.
<b>4</b> Select the channel number with two digits (e.g. 04) by pressing the number buttons. <p><b>Note</b> Press the second number within 5 seconds after the first one, otherwise the operation will be cancelled.</p>	The channel number changes. <p><b>Note</b> If you have made a mistake the letter "X" will appear. Repeat step 4 again.</p>
<b>5</b> Press $\diamond$ to store the channel which is tuned in. Press $\rightarrow$ to exit the preset mode without storing. 	The channel is now stored and you have returned to TV mode.
Repeat steps 1 to 5 to store the other channels.	

### How to Name a Station

You can use up to five characters to "name" a channel or station (i.e. BBC1).



Action	Result
<b>1</b> Select a programme number you want to name by pressing the PROGR +/- or the number buttons 	The selected programme number will appear.
<b>2</b> Press $\rightarrow$ . 	The programme number starts flashing.
<b>3</b> Press C. 	The first column of the station name indication will start flashing.
<b>4</b> Press + or - to select a letter in the alphabet, a number, or a blank space. 	The letters of the alphabet, numbers and the space (" ") will appear sequentially.
<b>5</b> Press C. 	The first character is now set and the second column will start flashing.
<b>6</b> Repeat steps 4 and 5 to set each letter.	
<b>7</b> Press $\diamond$ . 	The channel name is now stored and you have returned to TV mode.

### How to tune in a channel temporarily

You can tune in a channel temporarily, if it has not been preset.

Action	Result
<b>1</b> Press C. 	The indication "C" appears on the screen.
<b>2</b> Select the channel number with two digits by pressing the number buttons (e.g. for channel 4, first press 0, then 4.)	The channel is received, but it is not stored to any programme number.

## 1-3. BASIC TV OPERATION

### How to Skip Programmes

Using the PROGR +/- buttons you can skip unused programme channel numbers. However, the skipped numbers may still be called up using the number buttons.

Action	Result
<b>1</b> Press → to enter the preset mode. 	The programme number will start flashing.
<b>2</b> Select the programme number that you want to skip by pressing PROGR +/- or the number buttons. 	The programme number changes.
<b>3</b> Press Coo. 	The lowest channel number appears under the programme number.
<b>4</b> Press ◊. 	The channel is now stored and you have returned to TV mode.

Repeat steps 1 to 4 to skip other programme numbers.

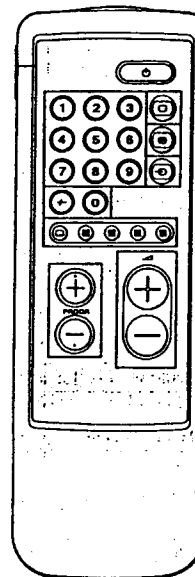
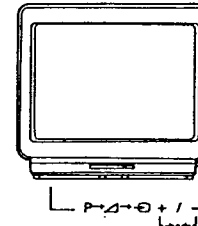
### How to Fine Tune Manually

If the picture is distorted, you can fine tune the channel manually.

Action	Result
Press  + or - repeatedly until the picture looks normal.	The indication ← F → appears on the screen.
Press → to enter the preset mode.	The programme number starts flashing.
Press ◊.	The fine tuning is stored.

Note: Normal tuning can be restored if you preset the channel once more.

Note: Press ⊥ on door to open.



This section introduces you to the basic control functions which are available on the simple side of the remote commander.

### How to Select Programmes

Before you can select programmes make sure that you have preset channels.

Action	Result
Press PROGR +/- or the number buttons. To select a double-digit number, use the +/- button. For example, if you want to choose 23, press +/-, 2, and then 3.	The selected programme is displayed.

### How to Adjust the Volume

Action	Result
Press Δ + or -.	The volume markers will appear, and are adjusted accordingly.

### How to Use additional features

Basic teletext operation

Select

The @button to view the teletext.

The Obutton to request subtitles (P.888).

One of the coloured buttons for fastext operation.

The Obutton to return to TV mode.

For details about teletext operation.

How to operate with the buttons on the TV

You can also select programmes and adjust the volume using the P-Δ-→ and →+/- buttons on the front of the TV.

For operation, first press the P-Δ-→ button repeatedly so that the P (for programme) or Δ (for volume) indication appears on the screen, and then adjust with the →+/- buttons.

Note: To restore to factory set level press → \* ← +/- together.

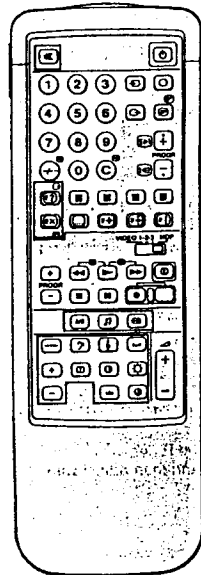
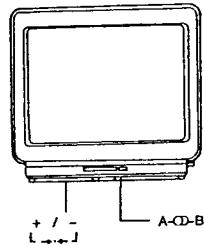
How to view the video input picture

Press ⊞ To return to the TV mode, press ⊞. For further details,



## 1-4. ADVANCED TV OPERATION

This section shows you how to use convenient features and how to adjust the picture and sound to your taste.  
Use the full-function side of the Remote Commander.



### How to use on-screen display and special sound features

You can enjoy the following convenient features.

How to	Action	To resume normal picture/sound
Display on-screen indications	Press <b>[ON]</b>	Indications disappear after some seconds
Display programme numbers	Press <b>[ON]</b> twice	Press <b>[ON]</b> twice again.
Mute the sound	Press <b>[MUTE]</b>	Press <b>[MUTE]</b> again.
Select a language in bilingual programmes.	Press A/B. The selected mode of the A-CDB indicator on the TV lights up.	Press A/B.
Set the sound for music listening.	Press <b>[MUSIC]</b>	Press <b>[MUSIC]</b> again.
Use the space sound (special acoustic effect)	Press <b>[SPACE]</b>	Press <b>[SPACE]</b> again.
Request the time	Press <b>[TIME]</b>	Press <b>[TIME]</b> again.

### How to adjust the picture and sound

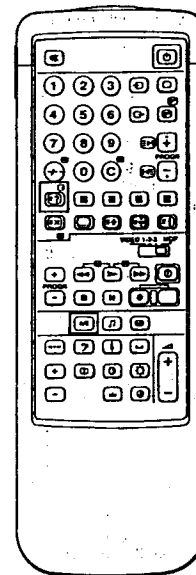
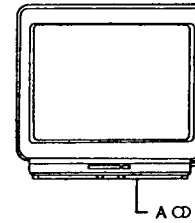
Although the picture and sound have been adjusted at the factory, you might want to adjust them to your own taste. To do this, please follow the steps below.

To Adjust:	Press:	Then:	Result: (+ ↔ -)
<b>Picture:</b>			
Colour Intensity	<b>[C]</b>	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px 5px;">+</div> <div style="border: 1px solid black; padding: 2px 5px;">-</div> </div>	More ↔ Less
Picture Contrast	<b>[C]</b>		More ↔ Less
Brightness	<b>[B]</b>		Bright ↔ Dark
Hue (for NTSC only)	<b>[H]</b>		Reddish ↔ Greenish
Picture Sharpness (only for KV-X2952U)	<b>[S]</b>		Sharp ↔ Soft
<b>Sound:</b>			
Bass	<b>[BASS]</b>	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px 5px;">+</div> <div style="border: 1px solid black; padding: 2px 5px;">-</div> </div>	More ↔ Less
Treble	<b>[TREBLE]</b>		More ↔ Less
Balance	<b>[BALANCE]</b>		More Right ↔ More Left

To reset the picture and sound to factory set levels press **[RESET]**.

**On the set:**

Press **[ON]** + **[MUTE]** buttons simultaneously.



### How to select a NICAM broadcast

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received, the **[NICAM]** symbol appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the **[NICAM]** symbol appears. To check if the channel you are watching is receiving Nicam, press the on screen display button **[ON]**, on the full function side of the remote commander.

### How to select the sound of your choice

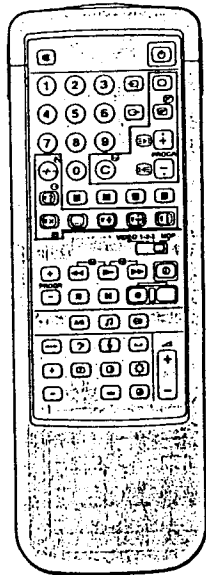
Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these, by pressing the **[A/B]** button on the full function side of the remote commander.

Service being broadcast	Action	The sound you hear	Indication on the TV A-CDB
Nicam		Stereo/ Mono (2 channel)	
	Press A/B	Normally broadcast sound	
	Press A/B again to return to stereo / Mono (2-channel)		
Bilingual		Language A	
	Press A/B	Language B	
	Press A/B	Normally broadcast language	
	Press A/B again to return to language A		





\* Depending on availability of service.

## 1-5. TELETEXT OPERATION

TV stations broadcast teletext programmes via the TV channels. To receive teletext programmes, use the buttons indicated in green on the full side of the Remote Commander. With the simple side of the Remote Commander, only the basic operation is possible.

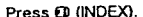











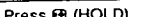





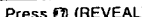






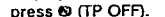


### How to View the Teletext

Action	Result
<b>1</b> Select the channel which carries the teletext service you wish to see.	The channel changes on the screen.
<b>2</b> Press  .	 If the teletext signal is not broadcast, then <b>P100</b> is displayed.
<b>3</b> Input three digits for the page number using the number buttons. Note If you make a mistake, type in any three digits, then re-enter the correct page number.	The numbers are entered on the screen. The requested page will appear in a few seconds.
<p>To return to the TV mode. Press .</p> <p>To change the teletext channels First press  to return to the TV mode, then repeat steps 1 to 3.</p>	

**Note**  
If the signal of the TV channel is weak, teletext errors may often occur.

### How to Use the Advanced Features of Teletext

How to	Action	Result (On-screen display)
Request the index page.	Press  .	 The index page appears.
Request the subtitle page (p888).	Press  .	The subtitle page is displayed (p888).
Access the next or preceding page.	Press  (PAGE +) or  (PAGE -).	 The next or preceding page appears.

How to	Action	Result
Superimpose the teletext display on the TV programme.	Press  once if you are in text mode, or press  twice if in TV mode. To return to the normal teletext display press  again.	 The teletext displays are superimposed on the TV programmes.
Prevent a teletext page from being updated or changed.	Press  (HOLD). To resume normal teletext reception, press  (TEXT/MIX).	 The HOLD symbol (  ) appears on the screen and the chosen sub-page is held until you cancel.
Enlarge the teletext display.	Press  once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.	 The upper half is enlarged.
Reveal concealed information (e.g. answers to a quiz).	Press  (REVEAL). Press again to conceal the information.	 The information is revealed.
Watch the TV programme while waiting for a requested page to be displayed.	1. Request a new page.	The numbers are entered.
	2. Press  (TEXT CL).	The TV programme is displayed, and the requested page number and other teletext data appear at the top of the screen.
	3. When the requested page has been captured, the page number remains and the other data disappears.	 P201
	4. Press  to view this page.	The requested page is displayed.
Have a requested page displayed at a pre-determined time.	1. Request a desired page.	The requested page is displayed.
	2. Press  (TP ON).	"T*****" appears at the bottom of the screen.
	3. Enter the time you want to have the page displayed with four digits using the number buttons. (For example, enter 0730 for 7:30 AM.)	The time is entered on the screen.
	4. Press  (TEXT CL) to watch the TV programme until the requested time.  To cancel the request Display the teletext page, then press  (TP OFF).	At the requested time, the page number will be displayed at the top of the screen, to view this page, press  .  The request is cancelled. To resume TV mode press  .

Some of the features may not be available depending on the Teletext service.

### How to use the FASTEXT Feature

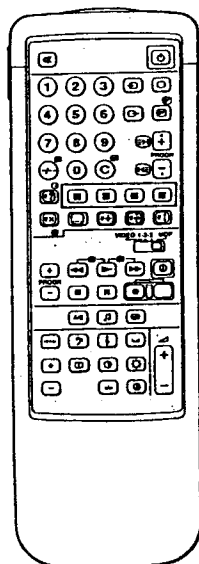
FASTEXT feature allows you to access pages quickly with one key operation. When a FASTEXT page is broadcast, a colour coded menu appears at the bottom of the screen. Each coloured prompt corresponds to the coloured buttons on either side of your Remote Commander.

#### Operation

Action	Result
Press one of the coloured buttons which correspond to the coloured prompt on the teletext.	The selected teletext page appears.

#### Note

Correct FASTEXT operation depends on the necessary signals sent from the TV station.






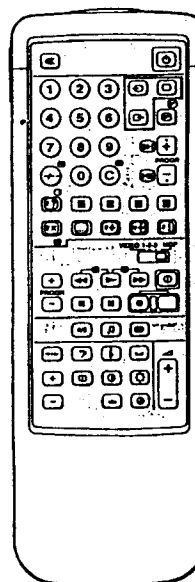
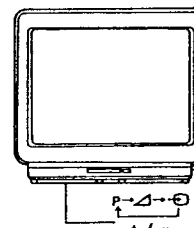
## 1-6. OPTIONAL CONNECTIONS / OPERATIONS

### How to view the video input picture


















You can view the picture of video equipment connected to the input terminals by selecting the input mode.

#### Operation



Action	Result
Press  repeatedly to select the desired input.	 1      Symbol for the selected input appears. (See the table below.)
To return to the TV mode, press the  button.	






#### Input modes

	Result
 1	Audio/video input through the  connector.
	RGB input through the  connector.
 2	Audio/video input through the  2/  connector.
 2	S video input (from a VTR equipped with an S video output) through the  2/  connector.
 3	Audio/video input through  and  jacks on the front.
 3	S video input through the  connector on the front (4-pin connector)
You can also select the input mode using the  button on the TV. In this case, first select  and then press +/- buttons to select the input.	











### How to select the Output

The  2/ connector outputs four kinds of audio/video signals. You have to select one of them as follows.

#### Operation

Action	Result
Press  repeatedly to select the desired input.	 1  Symbol for the selected output appears. (See the table below.)

#### Output modes

Symbol	Output from
1 	The audio/video signal from the  1 connector
2 	The audio/video signal from the  2/  connector
3 	The audio/video signal from the  and  connectors.
TV 	The audio/video signal from the  aerial terminal.

## 1-7. ADDITIONAL REMOTE COMMANDER OPERATION

### How to Control Other Sony Video Equipment

By switching the VIDEO 1/2/3, MDP selector, you can operate most Sony video equipment (Beta VTR, 8mm VTR, VHS VTR, and video disc player).

- 1** Set VIDEO 1/2/3, MDP selector according to the desired video equipment.  
 VIDEO 1: Beta or ED Beta VTR  
 VIDEO 2: 8mm VTR  
 VIDEO 3: VHS VTR  
 MDP: Video disc player



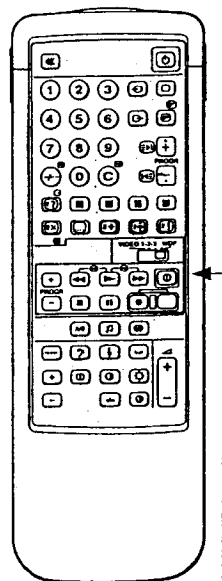
- 2** Use the buttons in the indicated area to operate video equipment.

#### Note

When you use ● button, be sure to press this button and the one on the right simultaneously.

#### Notes

- If your video equipment is furnished with COMMAND MODE selector, set the selector to the same position as the VIDEO 1/2/3, MDP selector on the supplied Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander will not work.

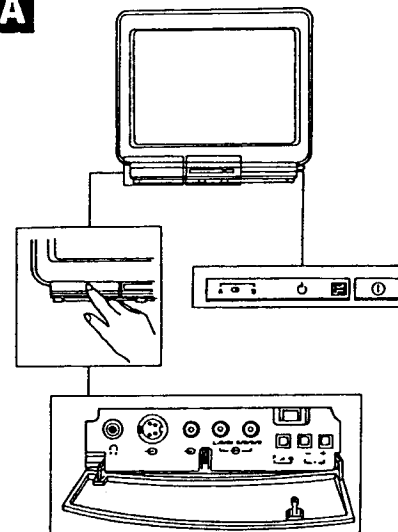


Buttons to operate other Sony Video equipment

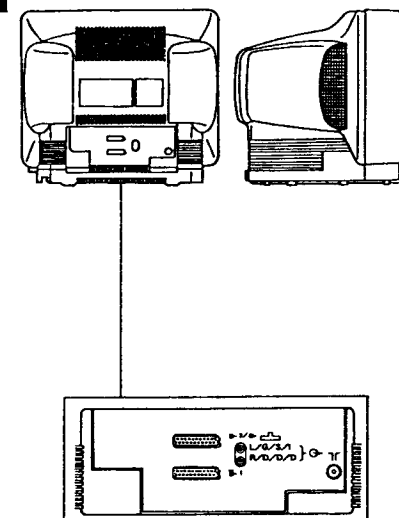
## 1-8. ADDITIONAL INFORMATION

### Parts Identification

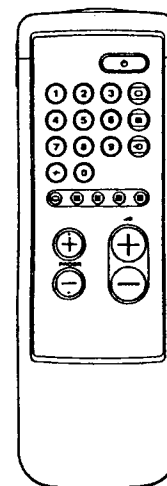
**A**



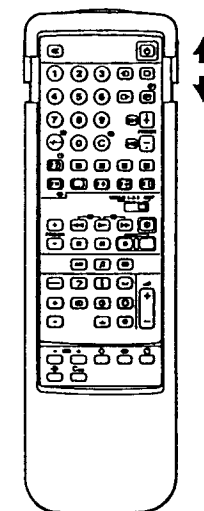
**B**



**C**



**D**



This section briefly describes the buttons and controls on the TV set and on the Remote Commander.  
For more information.

A TV set — Front	
Sign	Name
	Main power switch
	Standby indicator
A--B	NICAM indicators
	Headphones jack (stereo minijack)
	Input jacks (S-video /video/audio)
	Function selector (Programme/ volume/input)
	Adjustment buttons for function selector

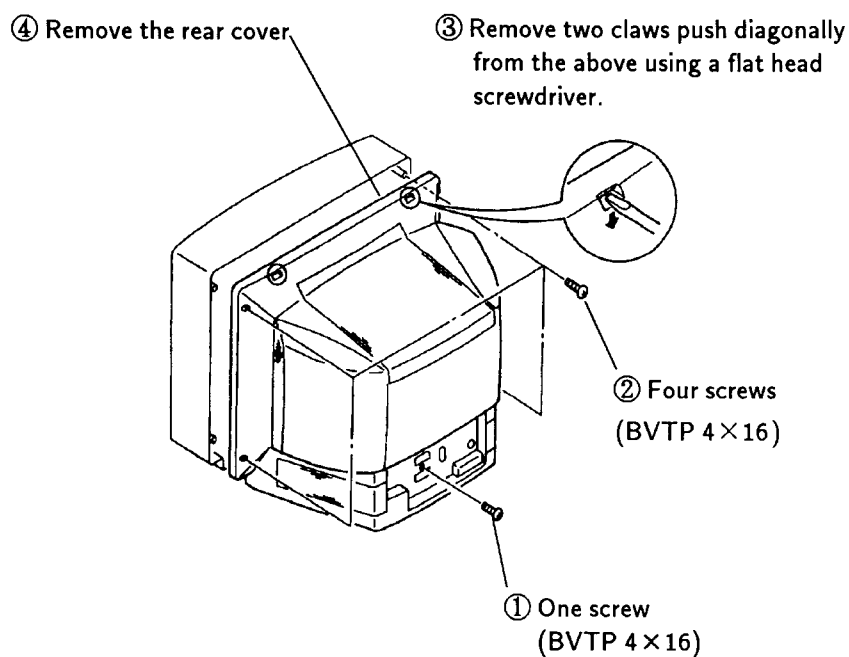
B TV set — Rear	
Sign	Name
	21-pin Euro-AV connector (S-video/video input, TV/video output)
	21-pin Euro-AV connector (RGB/ video input, TV output)
	Audio output jacks (phono jacks)
	Aerial terminal (IEC type)

C Remote Commander — simple side	
Sign	Name
	Input mode selector
	Teletext button
	Fastext buttons
	TV mode selector
	Standby button
1,2,3,4,5, 6,7,8,9, and 0	Number buttons
-/--	Double-digit entering button
	Volume control buttons
PROGR +/-	Programme selector

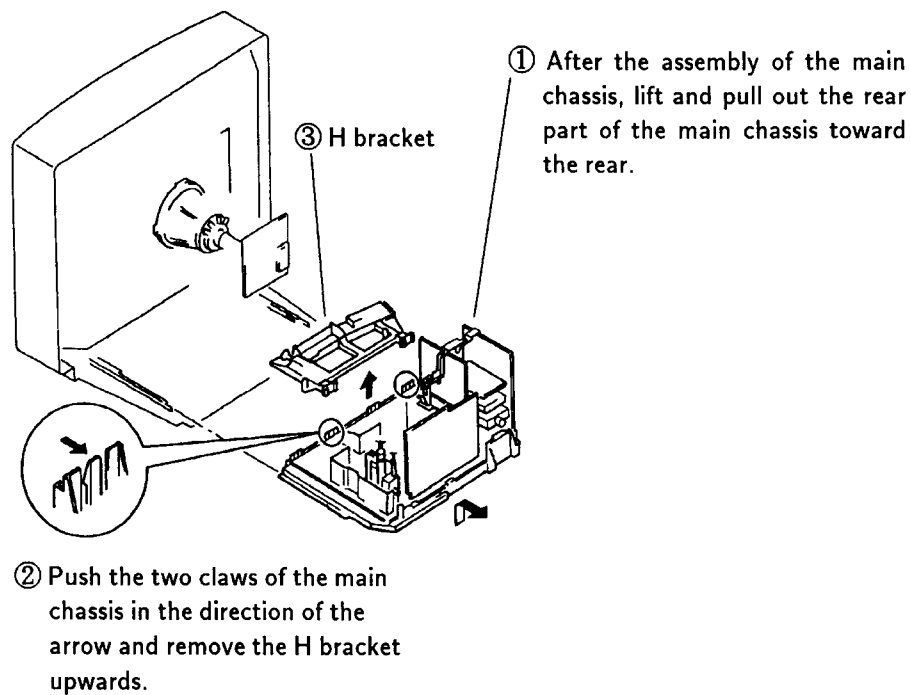
D Remote Commander — full function side	
Sign	Name
	Mute on/off button
	Standby button
1,2,3,4,5, 6,7,8,9, and 0	Number buttons
	Input mode selector
	TV power on/TV mode selector button
	Output mode selector
	Teletext button
	Music button
A/B	Selector for NICAM
-/--	Double-digit entering button
C	Direct channel entering button
	Space sound button
	Request time display
	Teletext operation buttons
	Fastext buttons
	On-screen display button
	Picture and sound adjustment reset button
	Volume control
PROGR +/-	Programme selector
	Picture and sound controls
VIDEO 1/2/3, MDP	Video equipment selector
	Video equipment operation buttons
Coo	Programme number clear button
	Channel preset button
-  +	Tuning buttons
	Channel store button
	Station label button

## SECTION 2 DISASSEMBLY

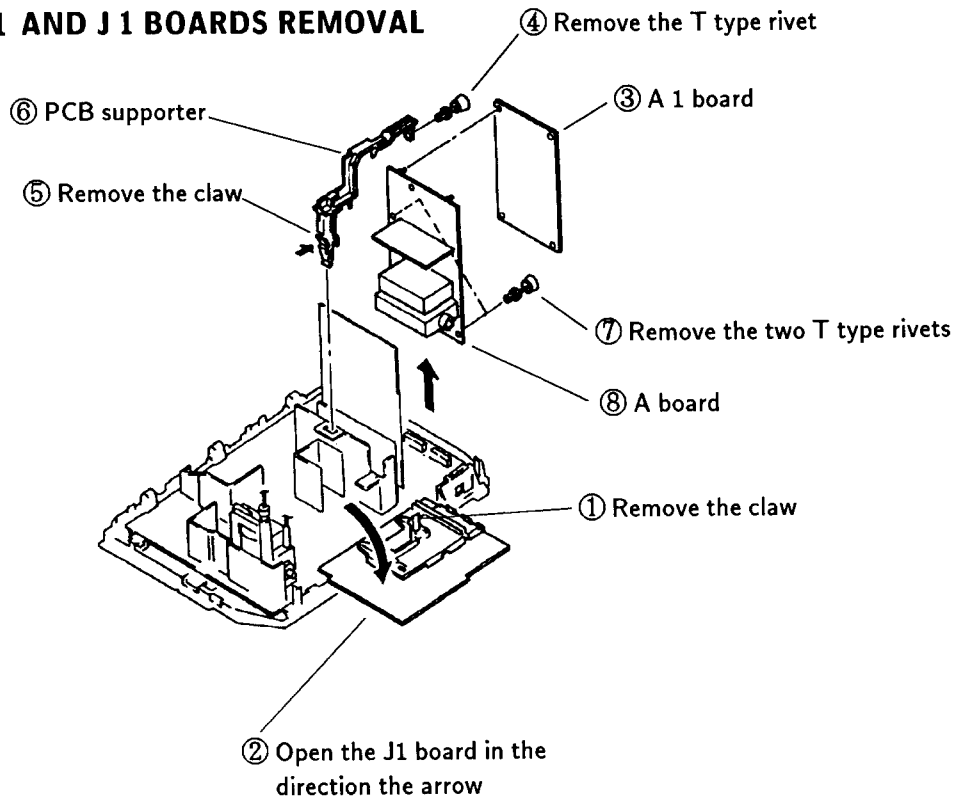
### 2-1. REAR COVER REMOVAL



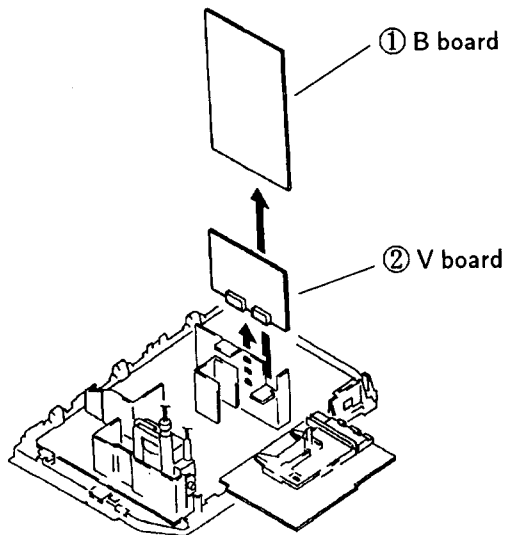
### 2-2. CHASSIS ASSEMBLY REMOVAL



### 2-3. A, A1 AND J1 BOARDS REMOVAL

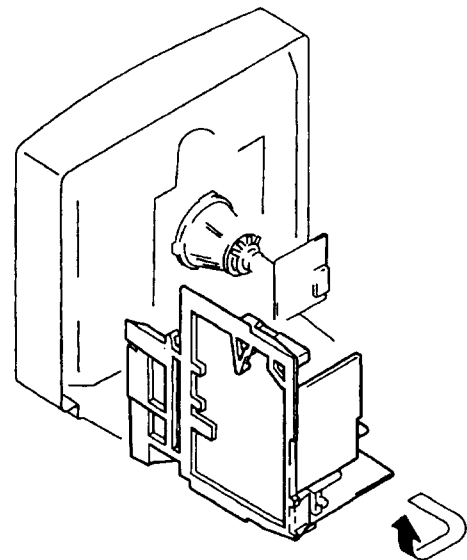


### 2-4. B AND V BOARDS REMOVAL

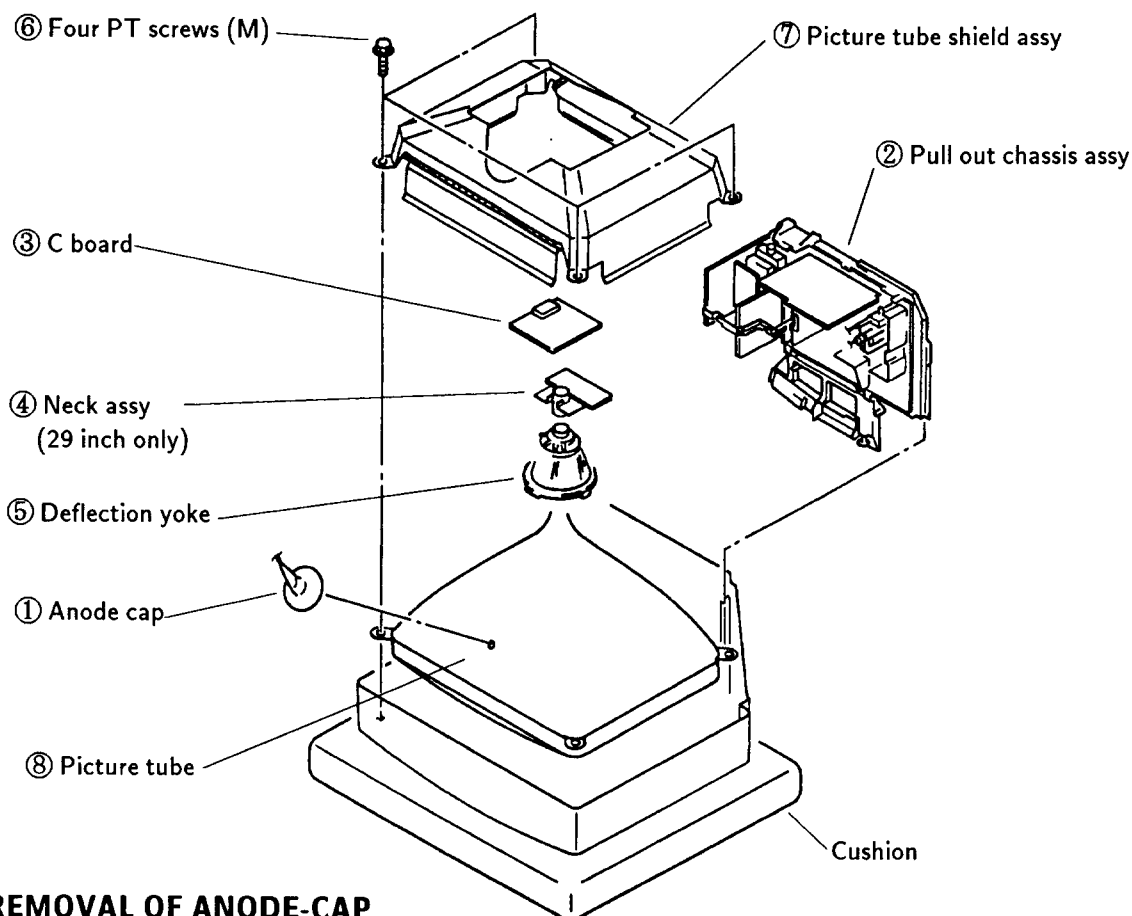


Note : 10 pin extension cable (S-0945-001-0)

### 2-5. SERVICE POSITION



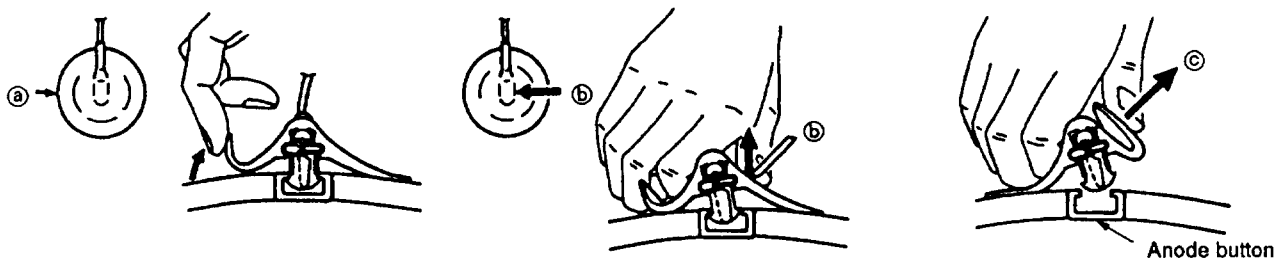
## 2-6. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

### • REMOVING PROCEDURES



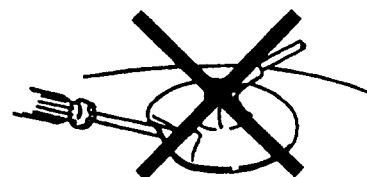
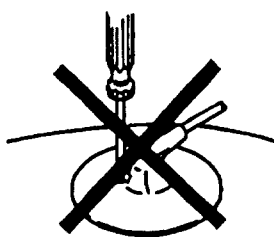
① Turn up one side of the rubber cap in the direction indicated by the arrow ①.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ③.

### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.





## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - Contrast .....80%  
(or remote control normal)
  - ⚙ Brightness .....50%

- Carry out the following adjustments in this order:

1. Beam landing
2. Convergence
3. Focus
4. White balance

**Note :** Testing equipment required

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

### Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

### 3-1. BEAM LANDING

- Input the white signal with the pattern generator.
  - Contrast } normal
  - Brightness }
- Position neck ass'y as shown in Fig 3-2.  
(29 inch only)
- Set the pattern generator raster signal to red.
- Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.  
(See Figures 3-1 through 3-3.)
- Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
- Switch the raster signal to blue, then to green and verify the condition.
- When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- If the beam does not land correctly in all the corners, use a magnet to adjust it.  
(See Figure 3-4.)

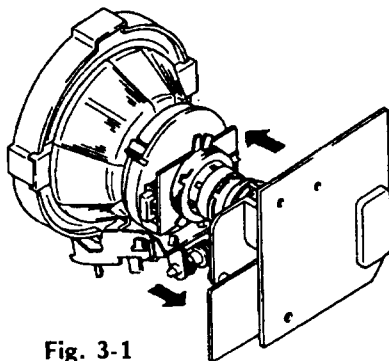


Fig. 3-1

Fig. 3-2

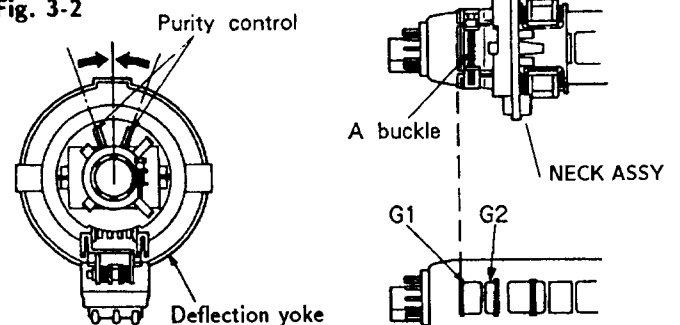


Fig. 3-3

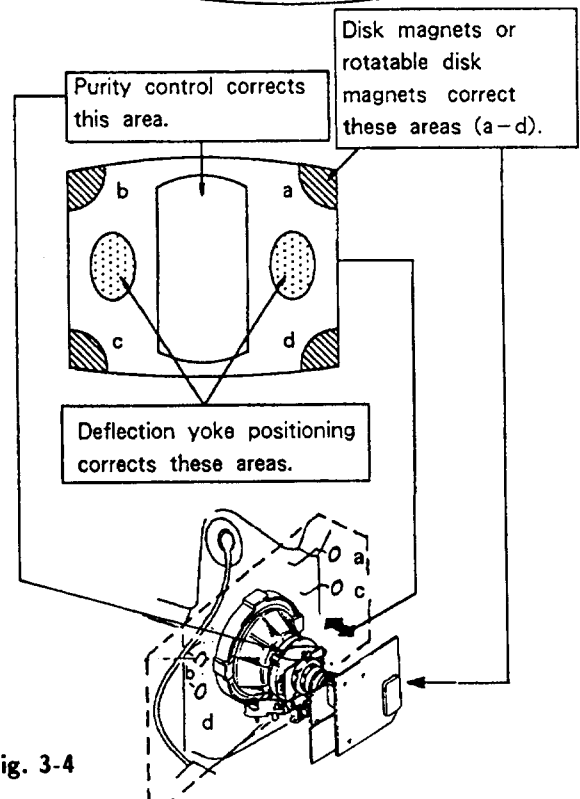
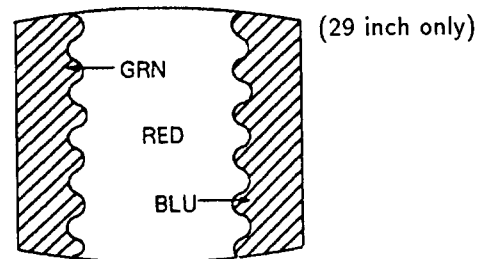


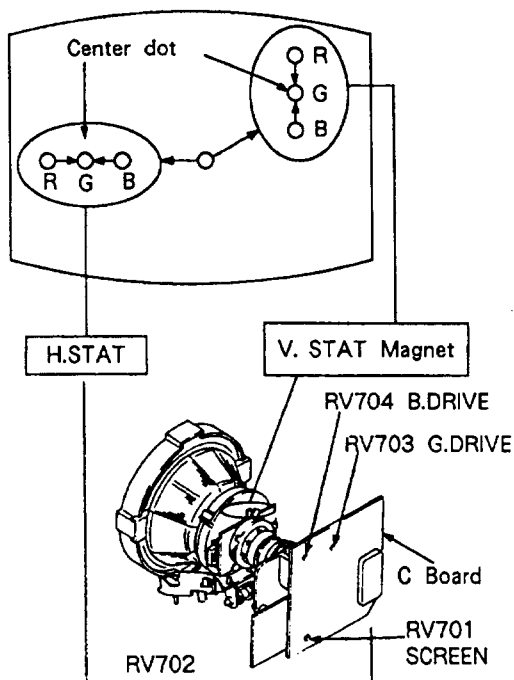
Fig. 3-4

## 3-2. CONVERGENCE

### Preparations :

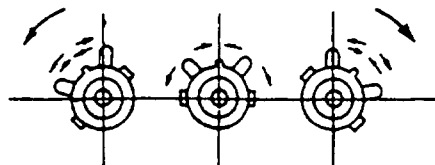
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

#### (1) Horizontal and vertical static convergence

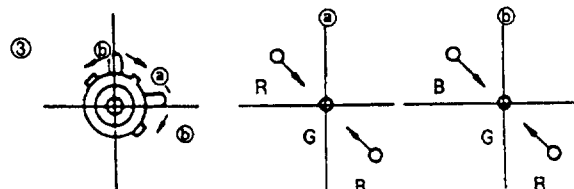
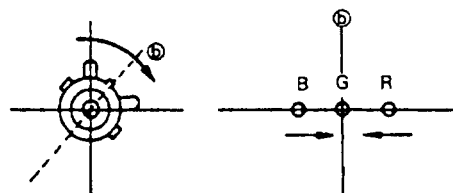
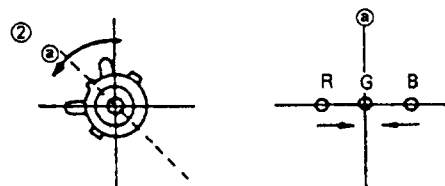
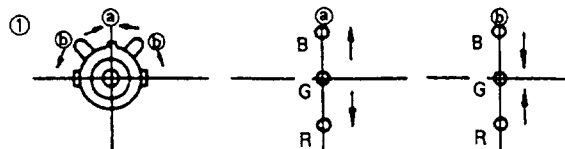


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V. STAT magnet influence each other)

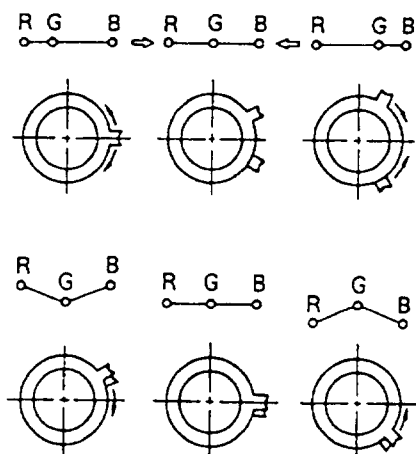
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the ① and ② arrows, the red, green, and blue points move as shown below.

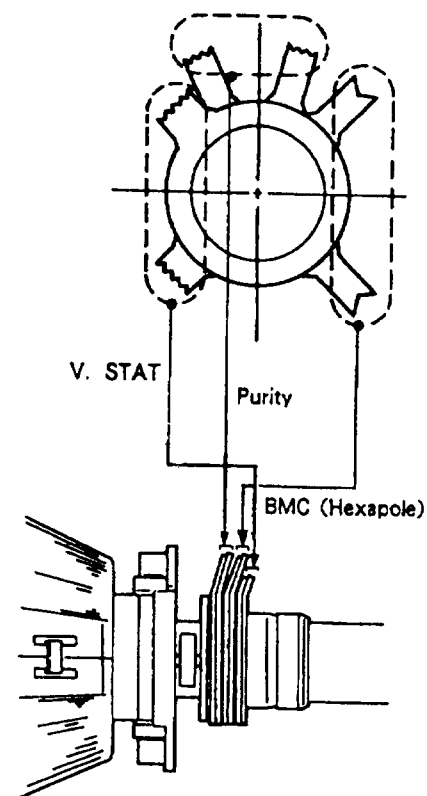


● Operation of BMC (Hexapole) Magnet



- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.

Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



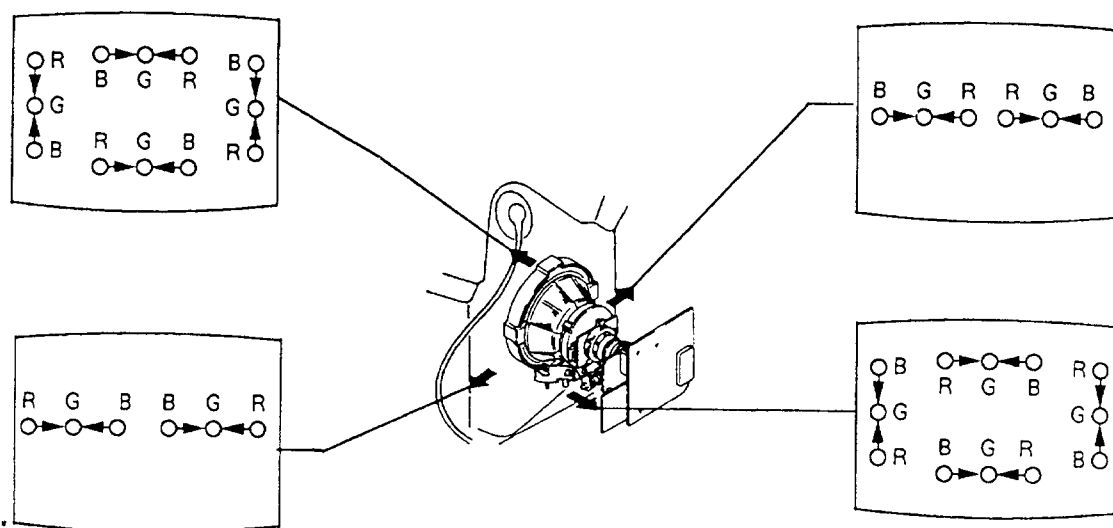
**(2) Dynamic convergence adjustment**

**Preparations :**

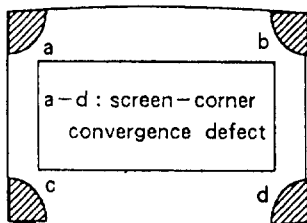
Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.

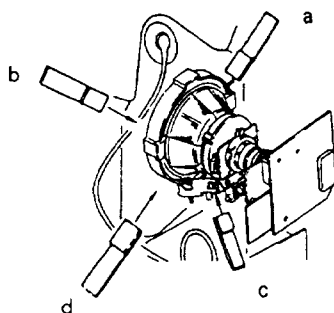
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the defelection yoke spacer.



### (3) Screen corner convergence



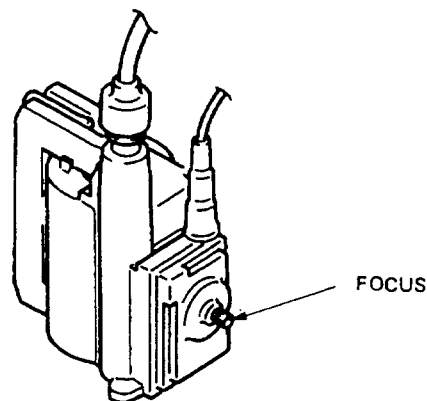
Install the permalloy assembly for the section with faulty.



Permalloy

### 3-3. FOCUS

Adjust the focus to optimize the screen.



### 3-4. WHITE BALANCE

#### [ Screen G2 setting ]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

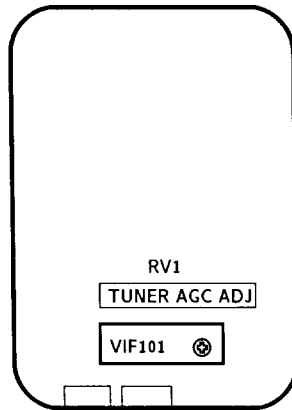
#### [ White balance adjustment ]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. A BOARD ADJUSTMENT

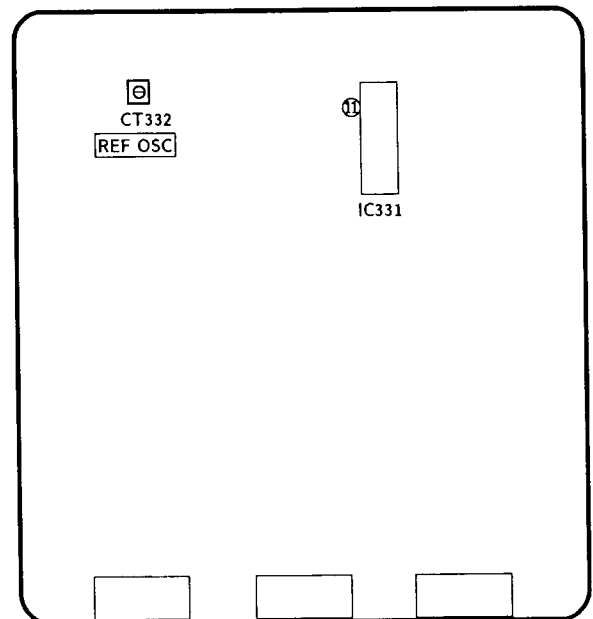


A BOARD (COMPONENT SIDE)

#### TUNER AGC ADJUSTMENT (VIF101, RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

### 4-3. B BOARD ADJUSTMENT

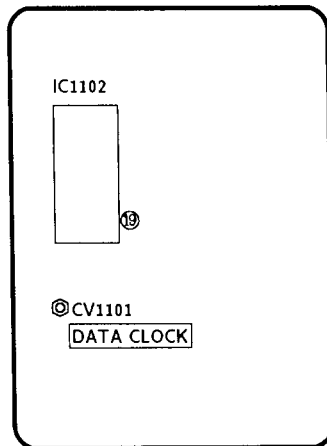


B BOARD (COMPONENT SIDE)

#### REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

1. Input a PAL colour bar signal.
2. Ground pin ⑪ of the IC331.
3. Adjust CT332 to obtain synchronization.

### 4-2. A1 BOARD ADJUSTMENT

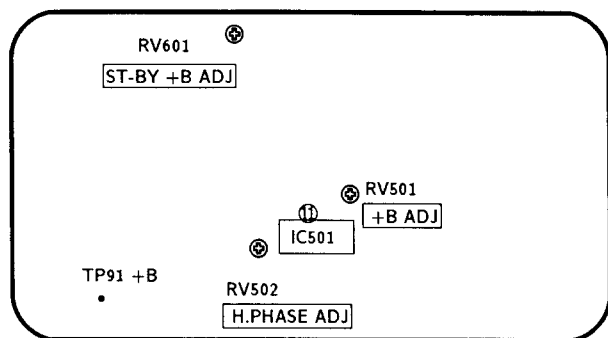


A1 BOARD (COMPONENT SIDE)

#### DATA CLOCK Adjustment (CV1101)

1. Tune in a no signal.
2. Connect a frequency counter to pin ⑪ of IC1102 (PCLK) through a probe of 10:1.
3. Adjust CV1101 (DATA CLOCK) so that frequency becomes  $728.022\text{KHz} \pm 1\text{Hz}$ .

## 4-4. D BOARD ADJUSTMENTS



D BOARD (COMPONENT SIDE)

### **+B ADJUSTMENT (RV501)**

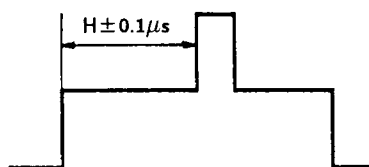
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain  $135 \pm 0.2V$ .

### **ST-BY +B ADJUSTMENT (RV601)**

1. Put the system into  $\text{⏻}$  standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain  $135 \pm 3V$ .
4. Take the system out of  $\text{⏻}$  standby mode (remote commander).

### **H.PHASE ADJUSTMENT (RV502)**

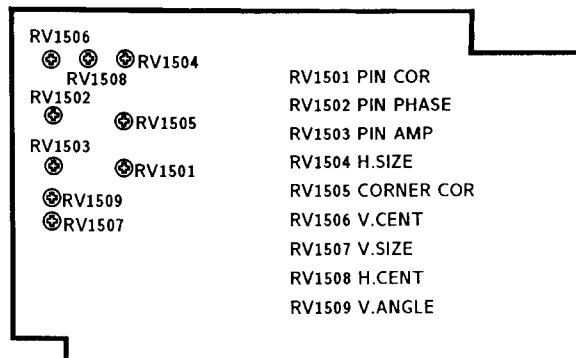
1. Input a PAL colour bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to  $H \pm 0.1\mu s$ .



Standard of H. PHASE

Model Size	H
25 "	$5.1\mu s$
29 "	$5.5\mu s$

## 4-5. J1 BOARD ADJUSTMENTS

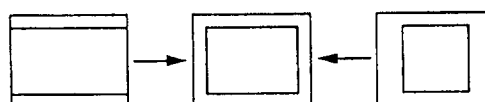


J1 BOARD (COMPONENT SIDE)

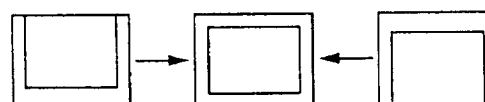
### **RV1508 H. CENT (HORIZONTAL CENTER)**



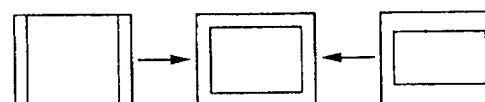
### **RV1504 H. SIZE (HORIZONTAL SIZE)**



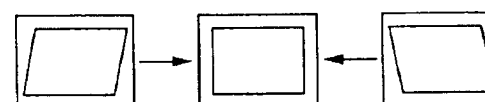
### **RV1506 V. CENT (VERTICAL CENTER)**



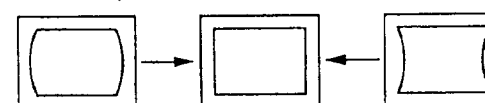
### **RV1507 V. SIZE (VERTICAL SIZE)**



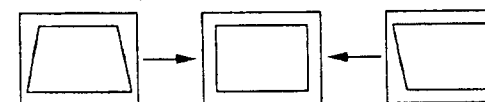
### **RV1509 V. ANGLE (VERTICAL ANGLE)**



### **RV1503 PIN AMP (PINCUSHION AMPLIFIER)**



### **RV1502 PIN PHASE (PINCUSHION PHASE)**



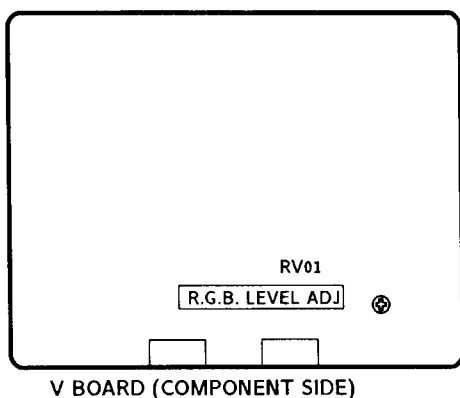
### **RV1501 PIN. COR (PINCUSHION CORRECT)**



### **RV1505 CORNER COR (CORNER CORRECT)**



#### 4-6. V BOARD ADJUSTMENT



##### RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

#### 4-7. SECONDARY ADJUSTMENTS

##### SUB BRIGHTNESS ADJUSTMENT

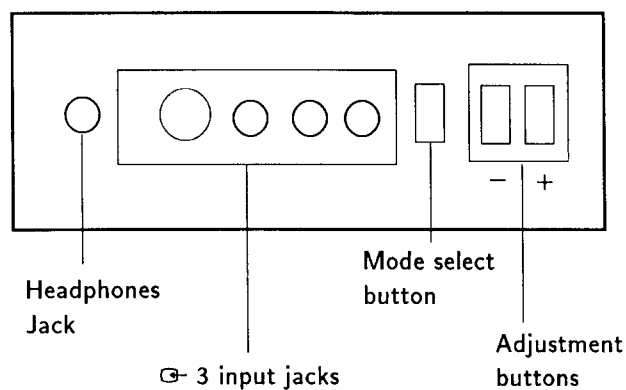
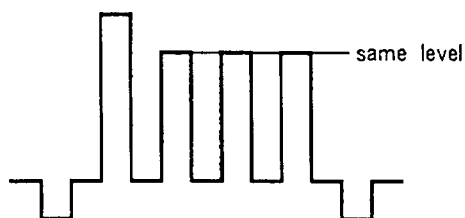
1. Set the system to receive a test pattern.
2. Press  $\rightarrow \bullet \leftarrow$  on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
5. Minimize the  $\bullet$  contrast setting.
6. Adjust the  $\odot$  brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the  $\diamond$  (store) button of the remote commander. (SUB mode is released)

If there is no test colour pattern

1. Set the system to receive a colour pattern.
2. Press  $\rightarrow \bullet \leftarrow$  on the remote commander to put the system into normal mode. Set the  $\odot$  color to its normal state.
- 3-5. Steps are the same as above.
6. Since 20 IRE is nearly blue, adjust the  $\odot$  brightness control so that the blue barely glows.
7. Same as step 7 above.
8. Press  $\rightarrow \bullet \leftarrow$  on the remote commander to put the system into normal mode.

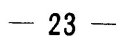
### **SUB COLOR ADJUSTMENT**

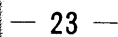
1. Set the system to receive color bars.
2. Press → • ← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and - simultaneously, turn on the power. (SUB mode is obtained).
5. Adjust the colour control so that the B out waveform (pin ⑤ of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)

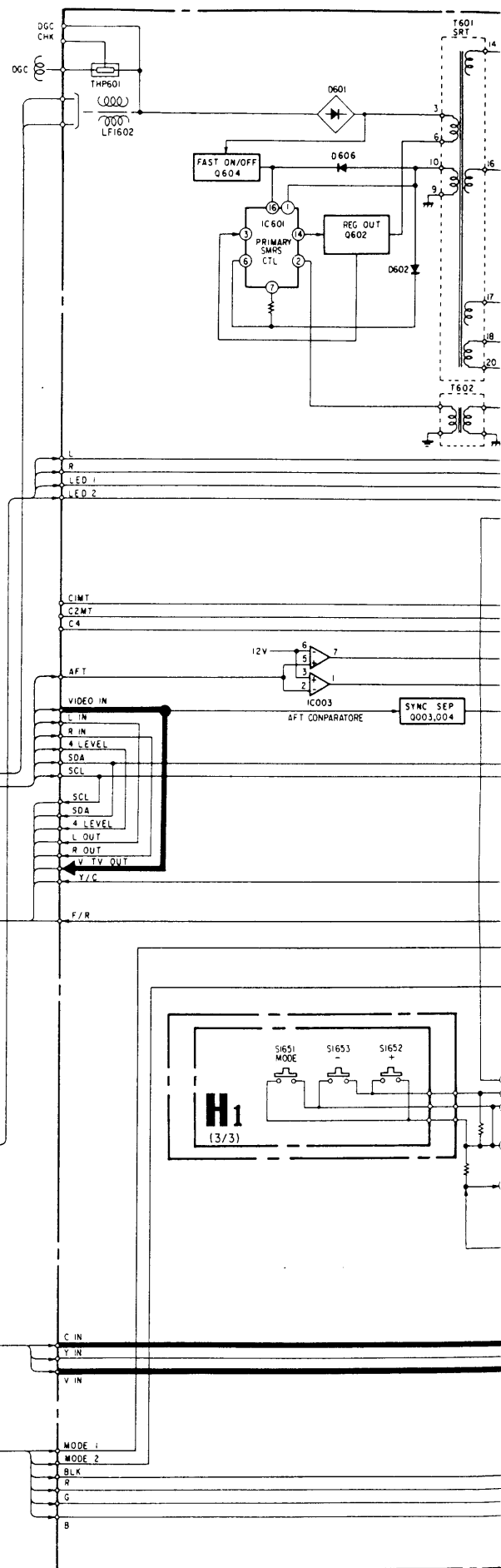
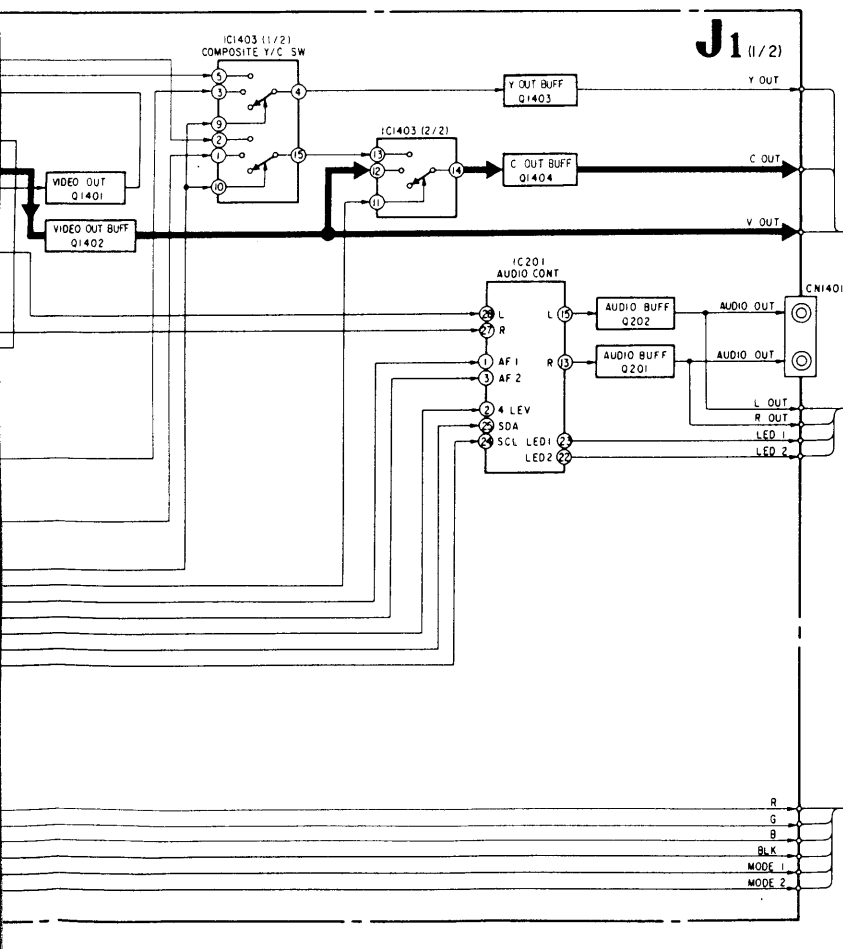
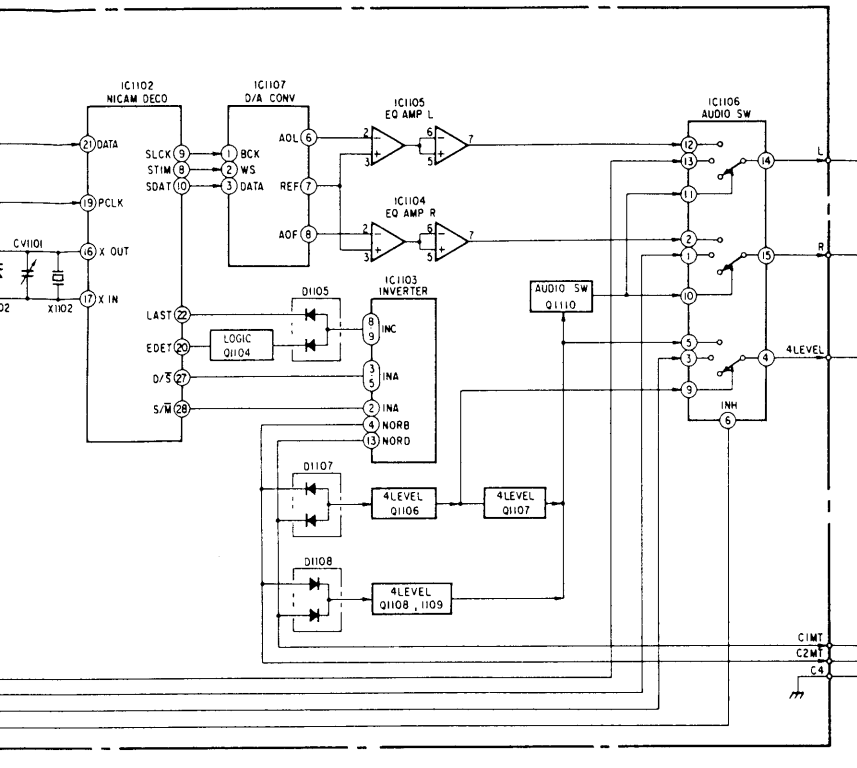


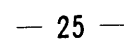


### 5-1. BLOCK DIAGRAM



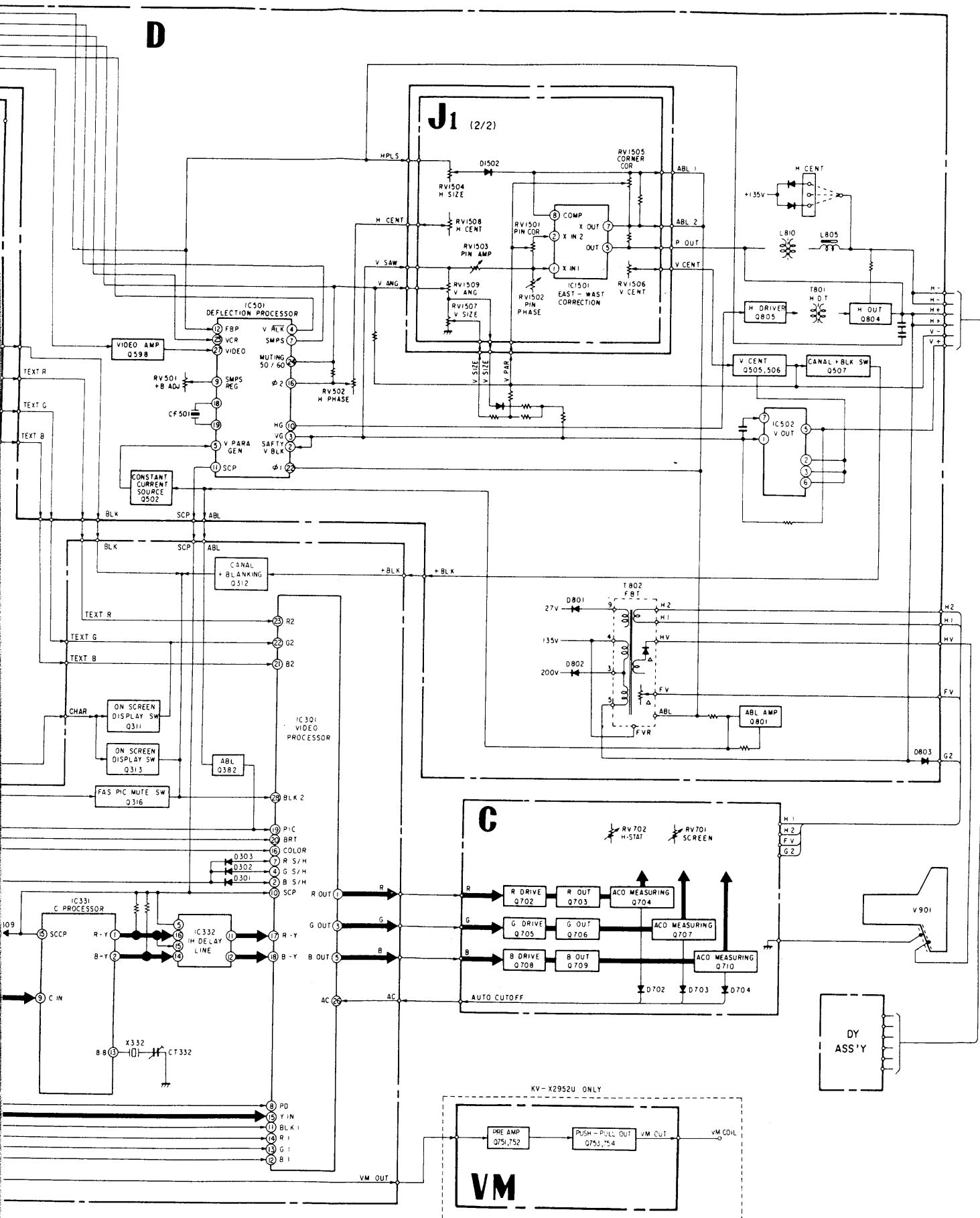




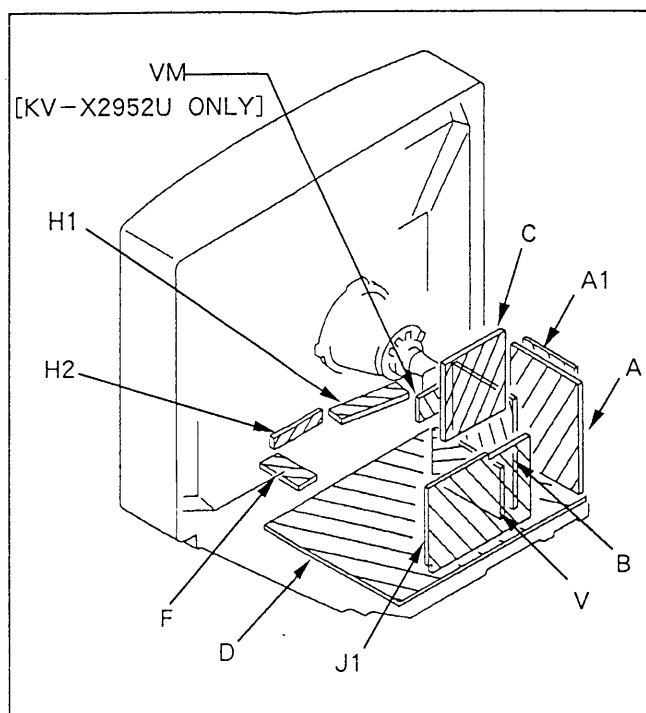









## 5-2. CIRCUIT BOARDS LOCATION



Refer  
RESIS

COIL  
CAPAC

## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS






**Note:** The components identified by shading and mark  are critical for safety. Replace only with part number specified.

### Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
 $\mu\text{F}$  :  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm

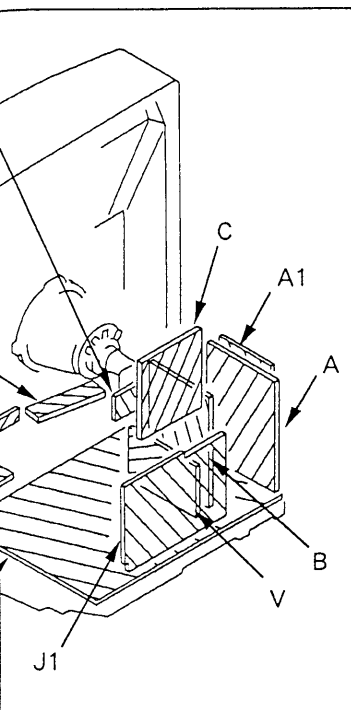
Rating electrical power: 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms.  $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
-  : nonflammable resistor.
-  : fusible resistor.
- $\Delta$  : internal component.
-  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a  $10\text{M}\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
-  : B+ line.
-  : signal path. (RF)



A

LOCATION



## Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

RAMS AND PRINTED WIRING BOARDS

Identified by shading and mark  
safety. Replace only with  
fied.

unless otherwise noted.

s are not indicated except for

which does not have one for  
as follows.

/4W

W.  
k $\Omega$  = 1000 $\Omega$ , M $\Omega$  = 1000k  $\Omega$

sistor.

r.

n and adjustment for repair.

le resistors have characteristic  
noted.

a 10M $\Omega$  digital multimeter.

a color-bar signal input.

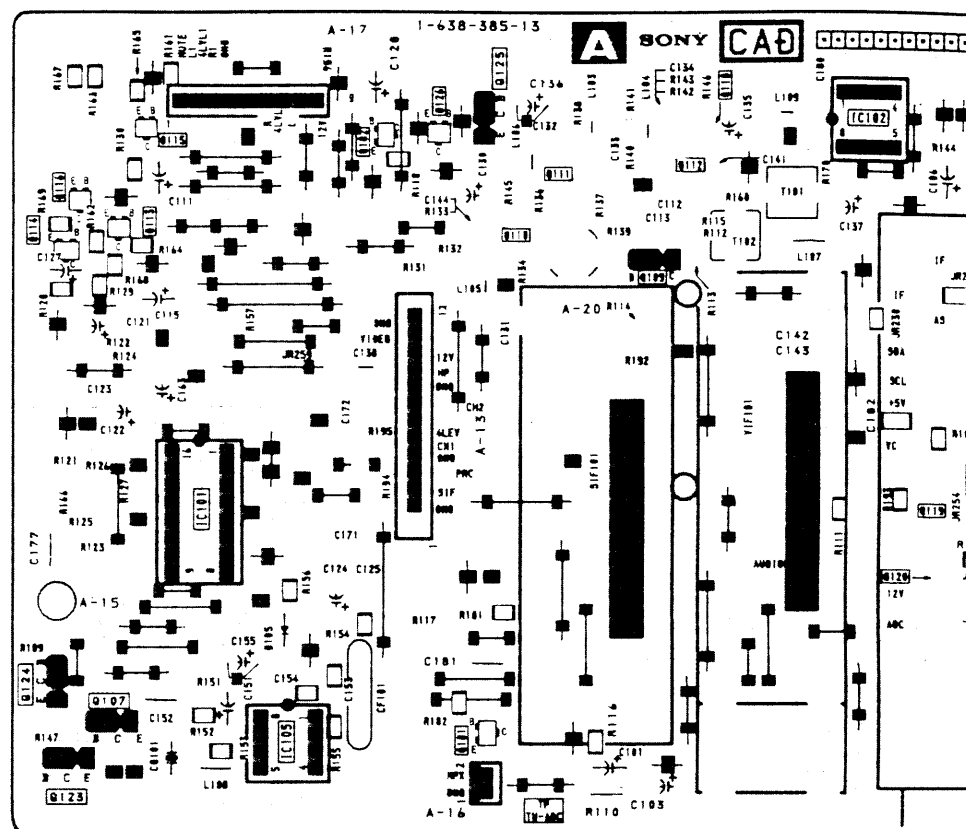
noted due to normal production

-A Bc

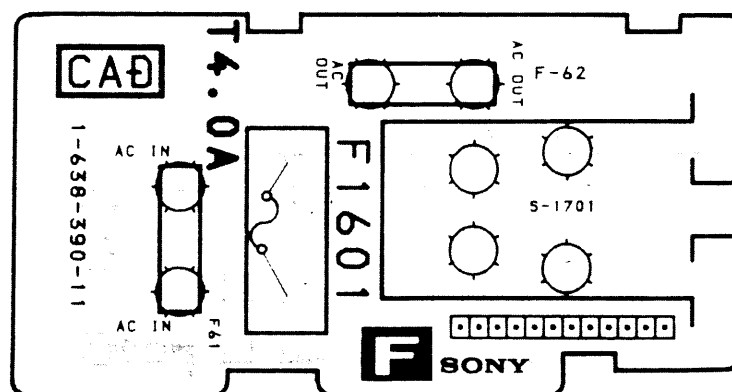


**A** [ TUNER, SIF  
VIF ]      **F** [ AC IN  
POWER SW ]      **J1** [ AUDIO CONTROL, A/V  
Y/C INPUT SCART V  
EAST-WEST CORRECTIO

- A Board -



-F Board-



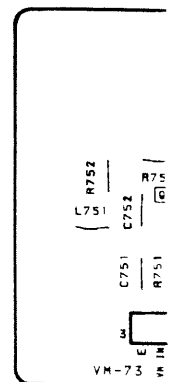
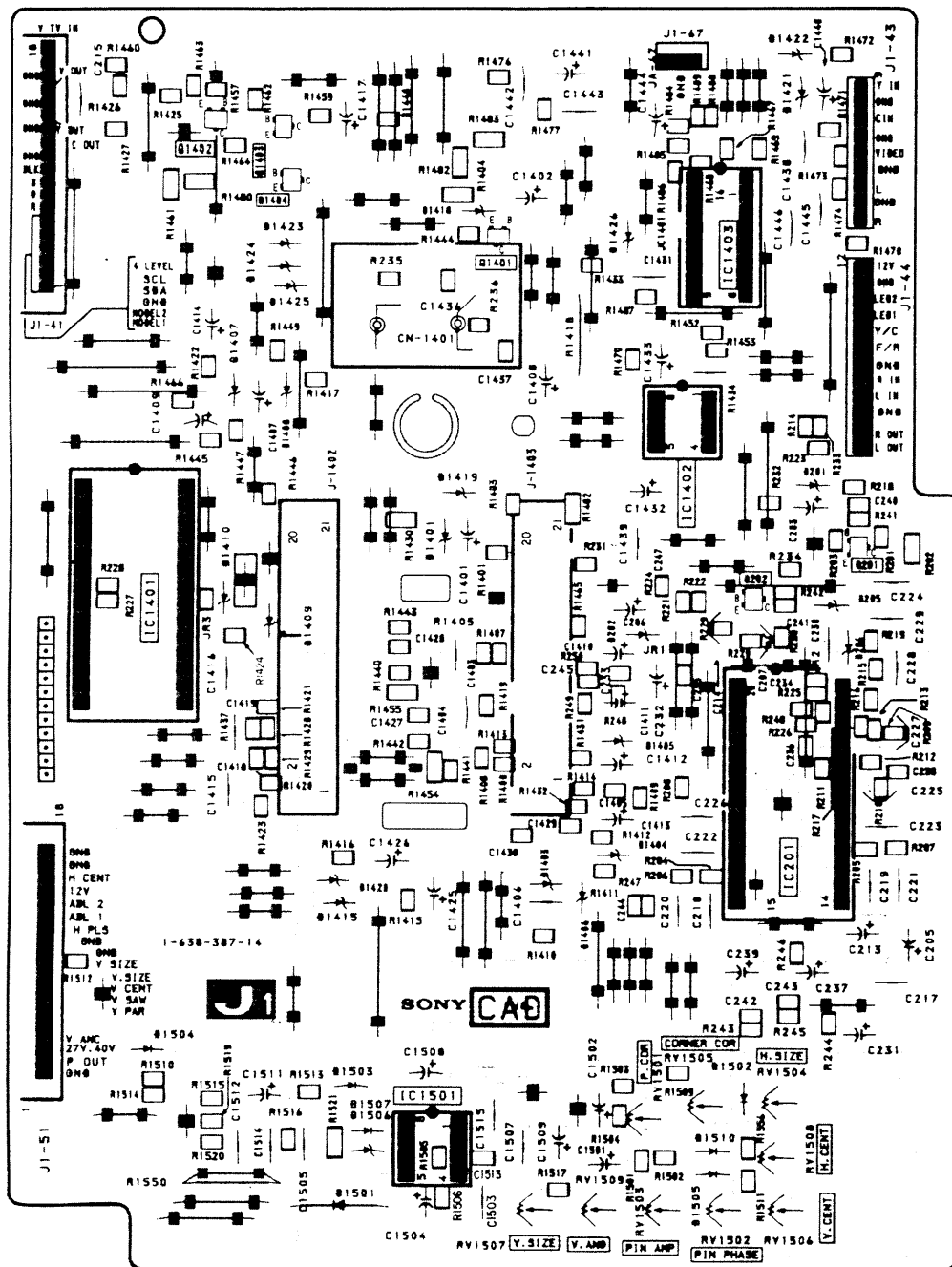


**H2**[SIRCS RECEIVER,  
INDICATOR]**VM**

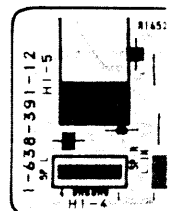
[VM AMP]

-J1 Board-

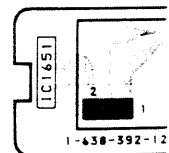
-VM Board-



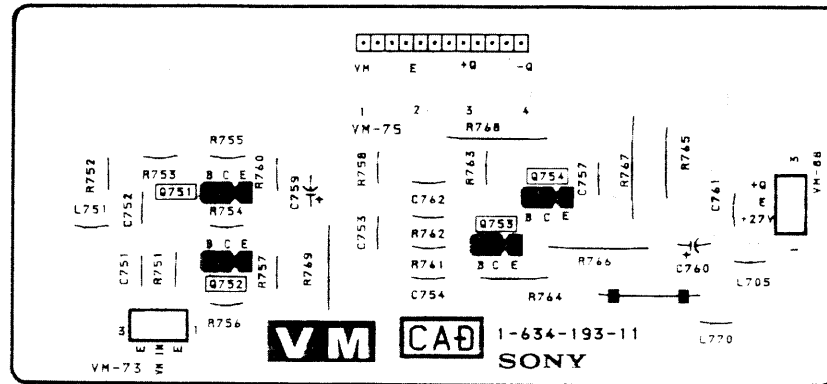
-H1 Board-



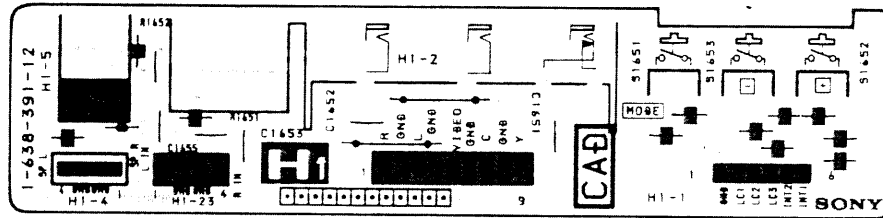
-H2 Board-



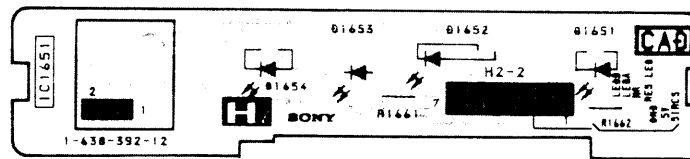
—VM Board— (29 INCH ONLY)

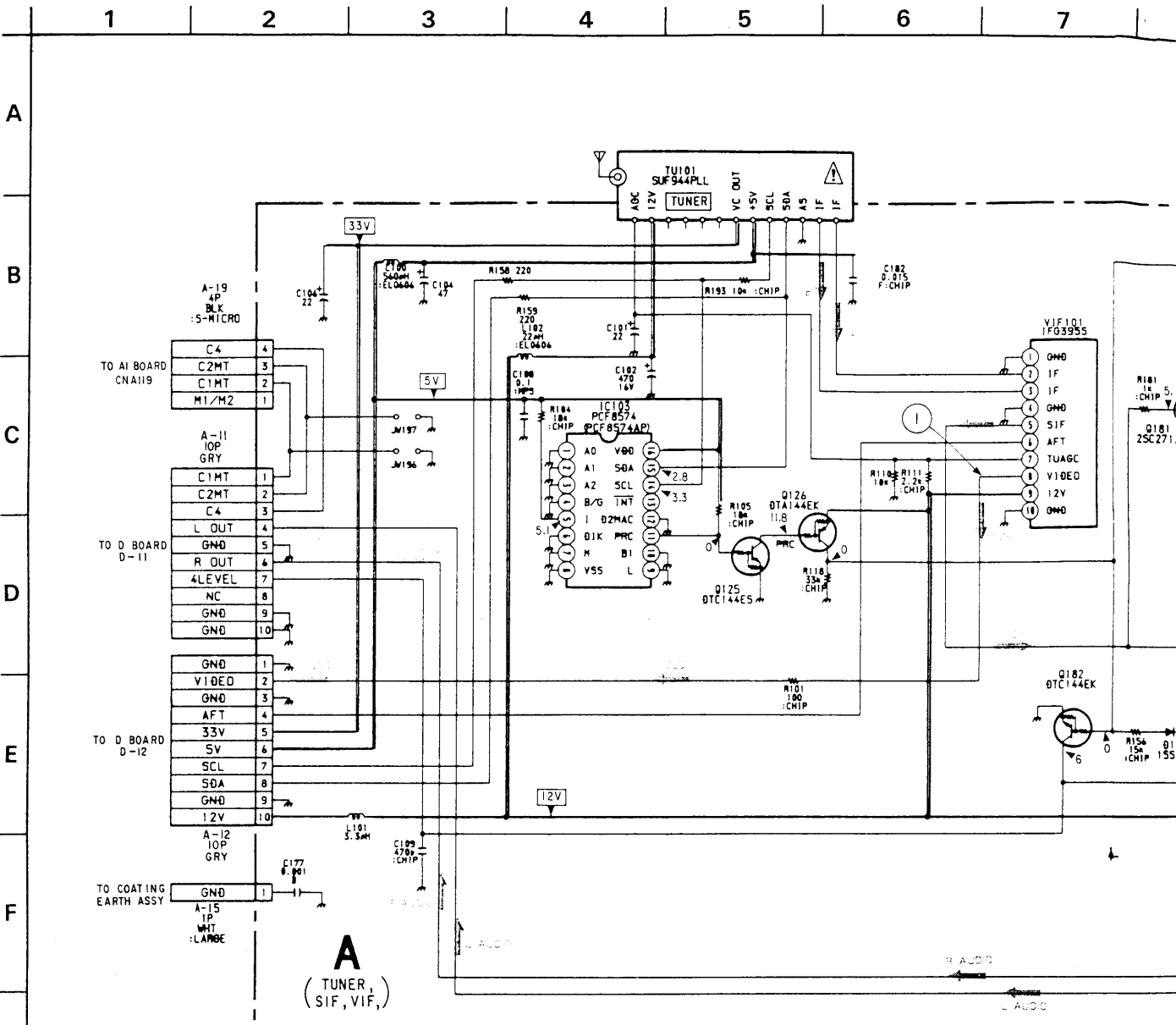


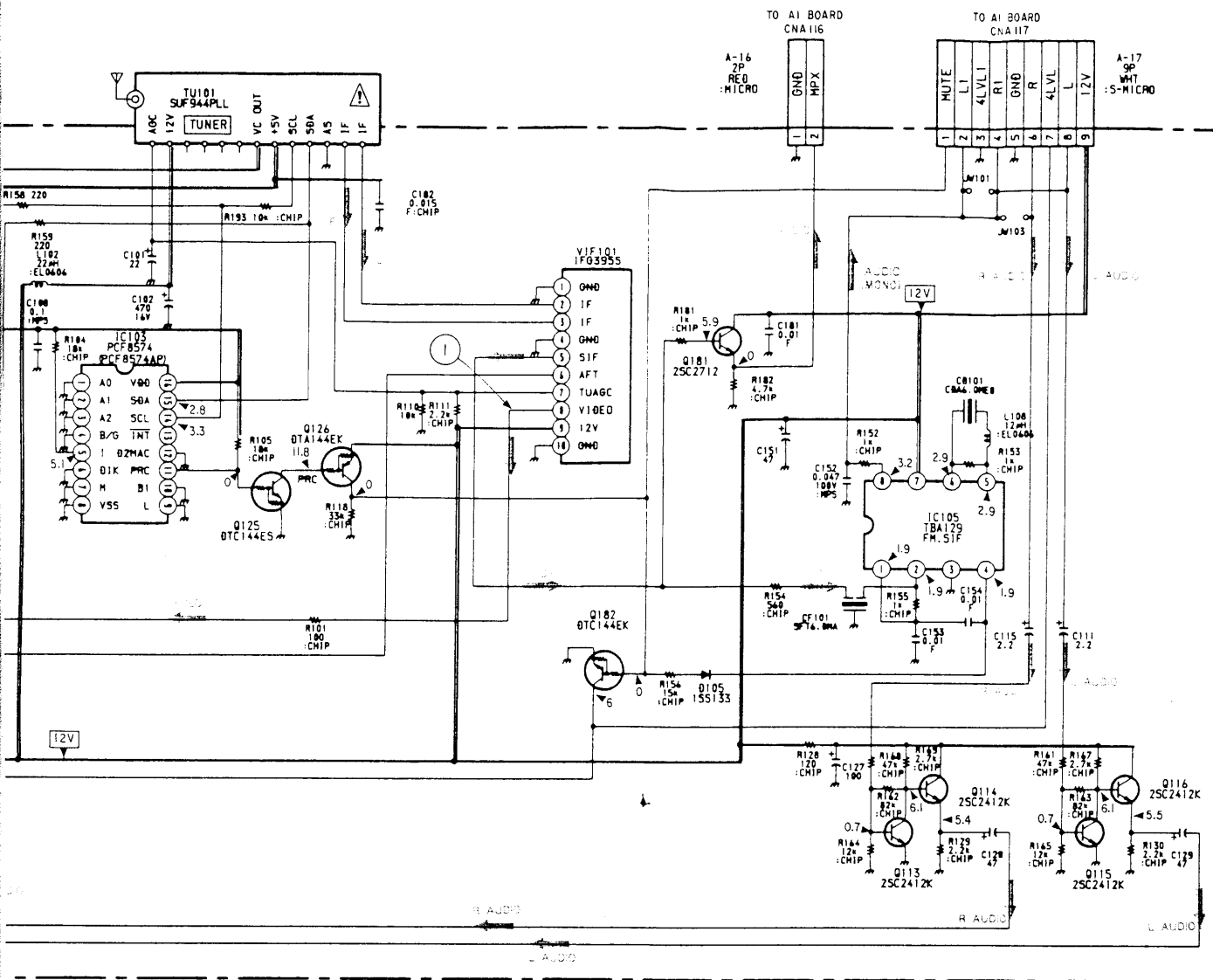
—H1 Board—



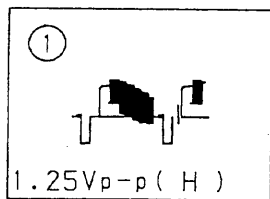
—H2 Board—







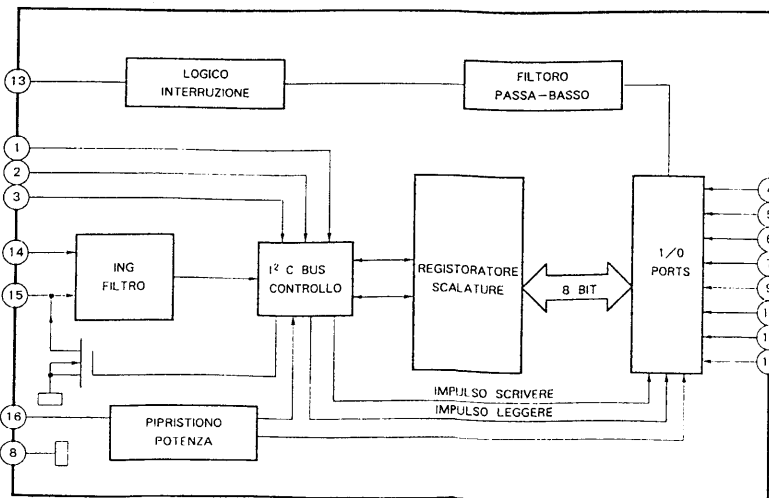
• WAVEFORMS A BOARD



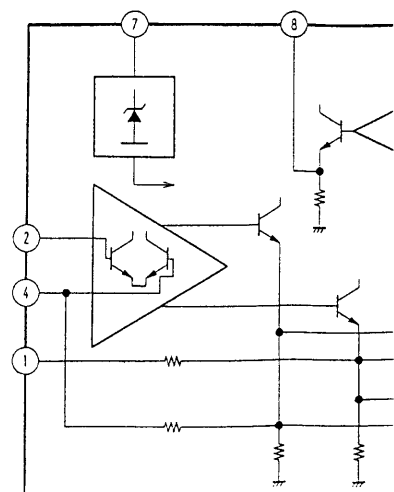
• A BOARD

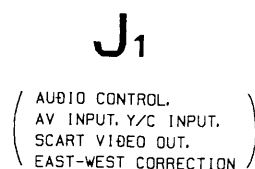
IC103	PCF8574	EXP
IC105	TBA129	FM
Q113	2SC2412K	AUI
Q114	2SC2412K	AUI
Q115	2SC2412K	AUI
Q116	2SC2412K	AUI
Q125	DTC144ES	MU
Q126	DTA144EK	MU
Q181	2SC2412K	NIC
Q182	DTC144EK	4 L

A BOARD IC103 PCF8574

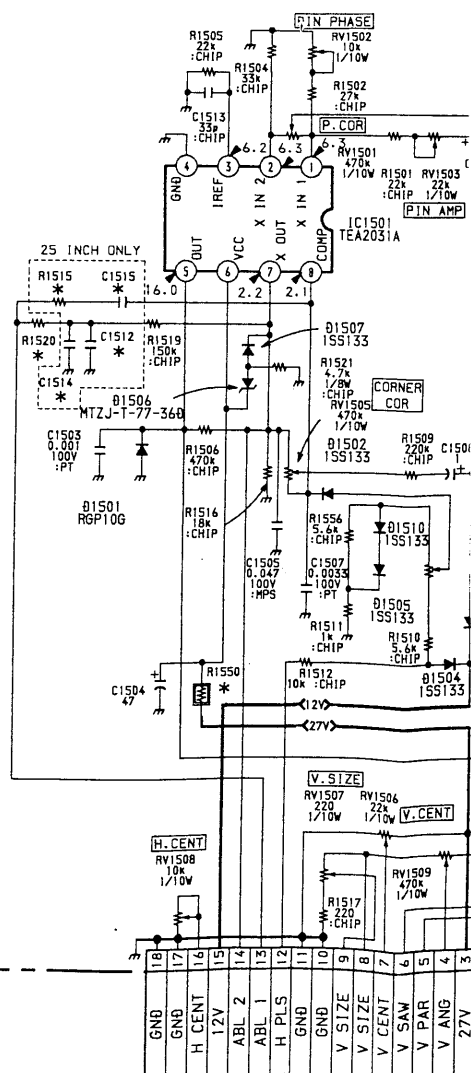


A BOARD IC105 TBA129





A BOARD IC105 TBA129

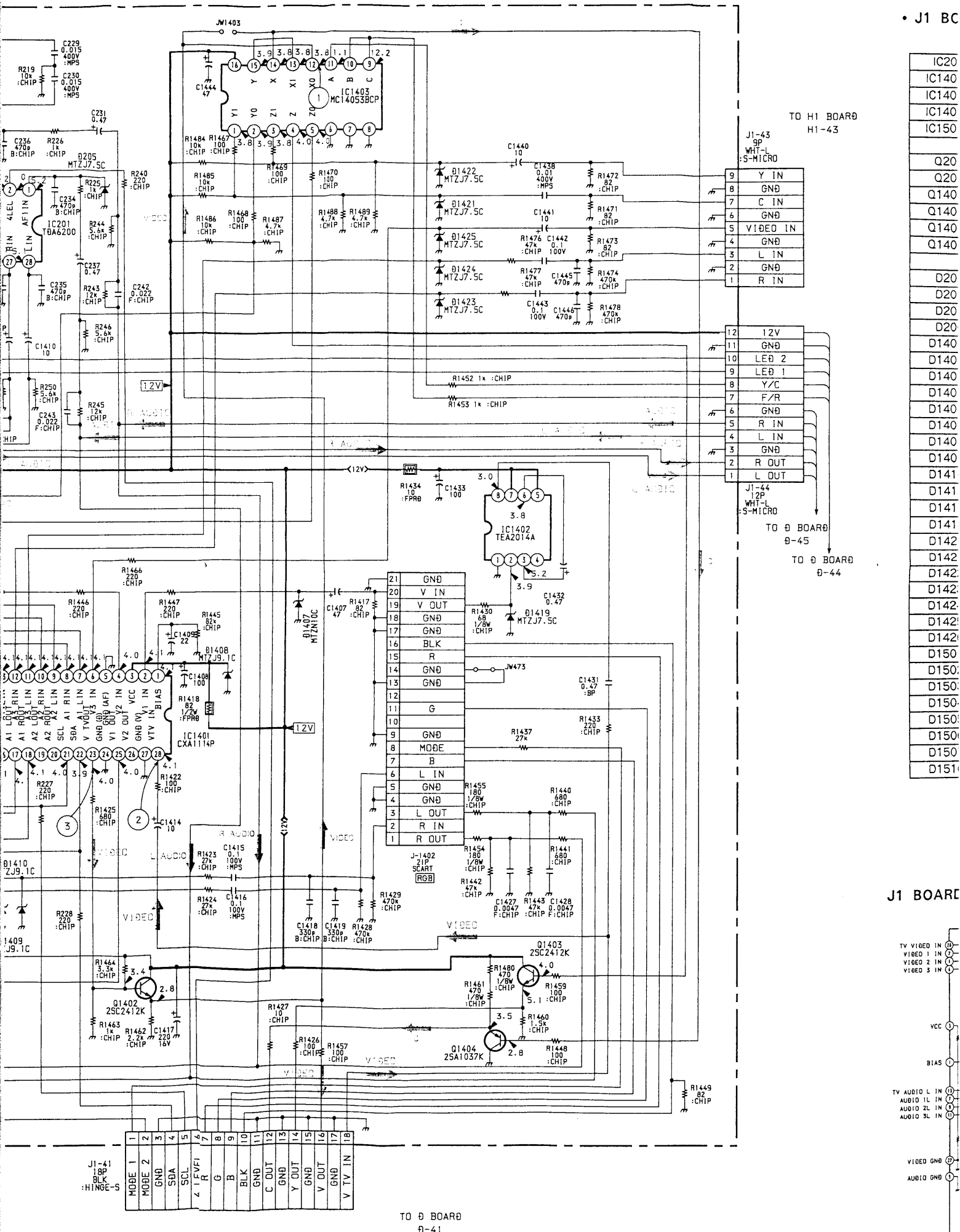




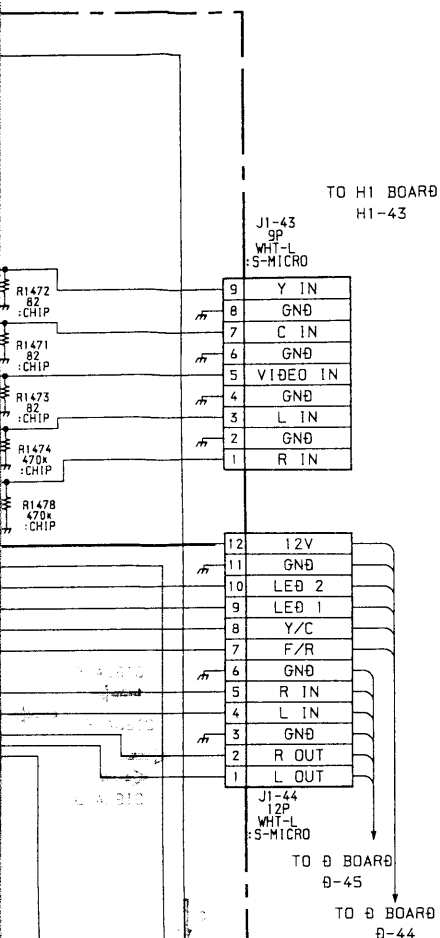




- J1 BC

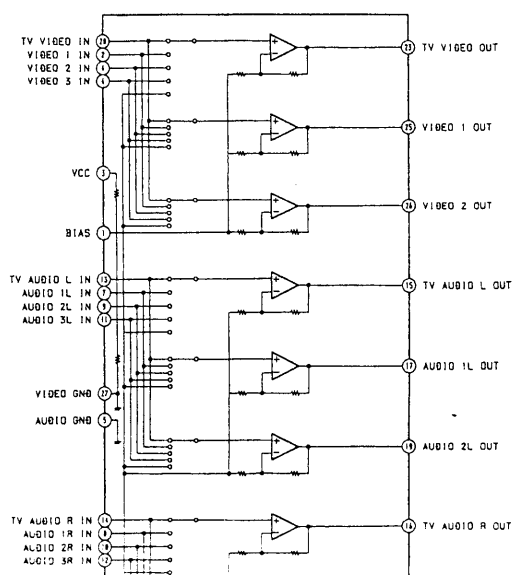


## • J1 BOARD

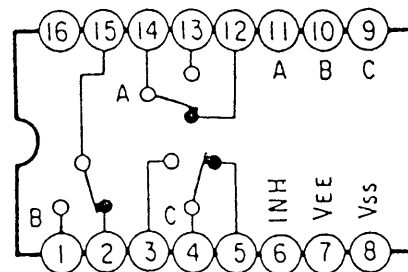


IC201	TDA6200	AUDIO CONTROL
IC1401	CXA1114P	AV SW
IC1402	TEA2014A	SCART VIDEO OUT
IC1403	MC14053BCP	COMPOSITE Y/C SW
IC1501	TEA2031A	EAST-WEST CORRECTION
Q201	2SC2412K	AUDIO R BUFF
Q202	2SC2412K	AUDIO L BUFF
Q1401	2SA1037K	VIDEO OUT
Q1402	2SC2412K	VIDEO OUT BUFF
Q1403	2SC2412K	Y OUT BUFF
Q1404	2SA1037K	C OUT BUFF
D201	MTZ-9.1C	PROTECT
D202	MTZ-9.1C	PROTECT
D205	MTZ-7.5C	PROTECT
D206	MTZ-7.5C	PROTECT
D1401	MTZ-7.5CJ	PROTECT
D1403	MTZ-7.5CJ	PROTECT
D1404	MTZ-7.5CJ	PROTECT
D1405	MTZ-7.5CJ	PROTECT
D1406	MTZ-7.5CJ	PROTECT
D1407	MTZ-10C	PROTECT
D1408	MTZ-9.1C	REG
D1409	MTZ-9.1C	PROTECT
D1410	MTZ-9.1C	PROTECT
D1415	MTZ-7.5C	PROTECT
D1418	MTZ-7.5CJ	PROTECT
D1419	MTZ-7.5C	PROTECT
D1420	MTZ-7.5C	PROTECT
D1421	MTZ-7.5CJ	PROTECT
D1422	MTZ-7.5CJ	PROTECT
D1423	MTZ-7.5CJ	PROTECT
D1424	MTZ-7.5CJ	PROTECT
D1425	MTZ-7.5CJ	PROTECT
D1426	MTZ-7.5CJ	PROTECT
D1501	RGP10GPKG23	PROTECT
D1502	1SS133	DECOUPLING H SIZE
D1503	1SS133	CLIPPING V PARABORA
D1504	1SS133	CLIPPING H PULSE
D1505	1SS133	REG
D1506	MTZJ-T-77-38D	PROTECT
D1507	1SS133	PROTECT
D1510	1SS133	REG

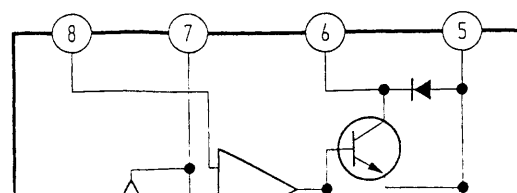
J1 BOARD IC1401 CXA1114P

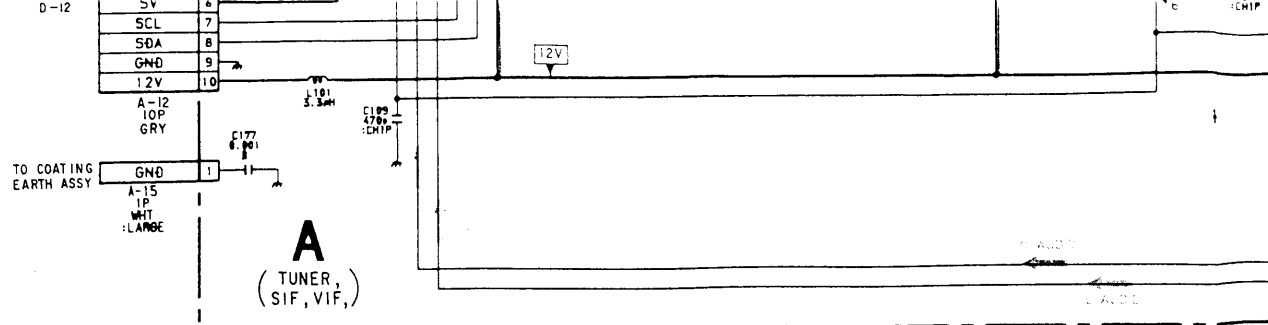


J1 BOARD IC1403 MC14053BCP

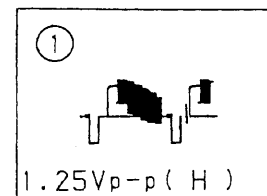


J1 BOARD IC1501 TEA2031A

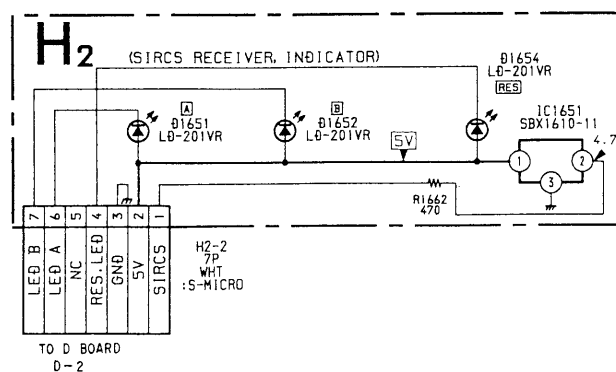
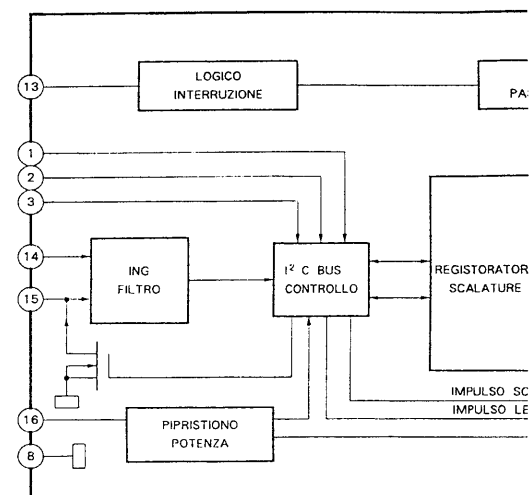
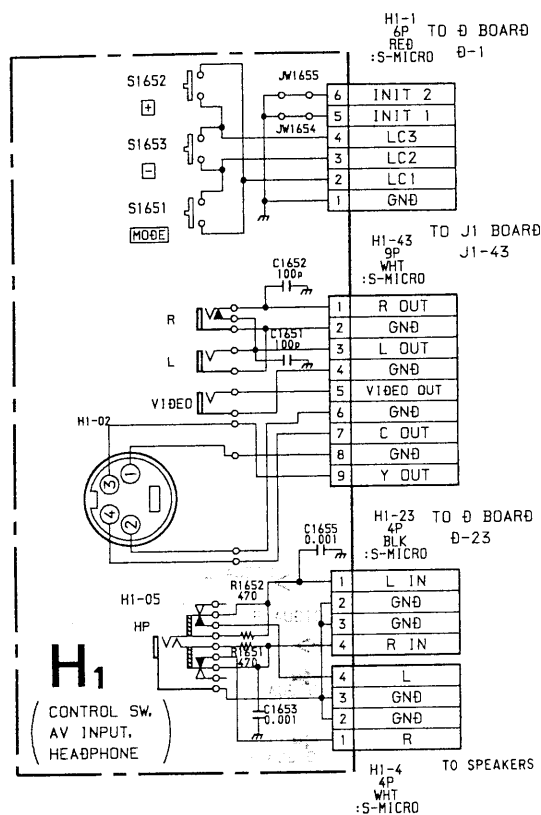




• WAVEFORMS A BOARD

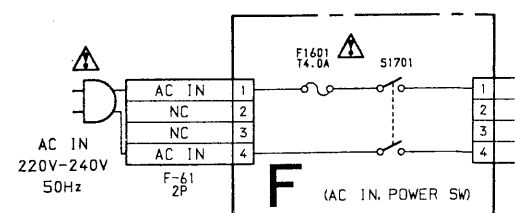


A BOARD IC103 PCF8574

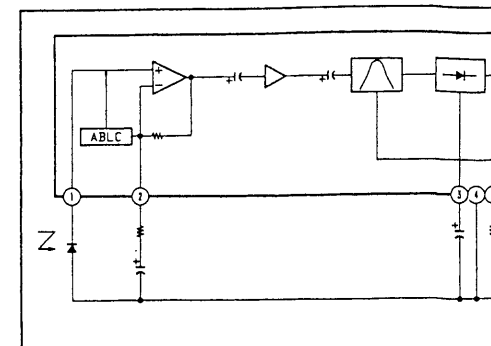


- H2 BOARD

IC1651	SBX1610-11	INFRARED RECIVER
D1651	LD-201VR	AUDIO CHANNEL A INDICATOR
D1652	LD-201VR	AUDIO CHANNEL B INDICATOR
D1654	LD-201VR	RESET



H2 BOARD IC1651 SBX1610-11

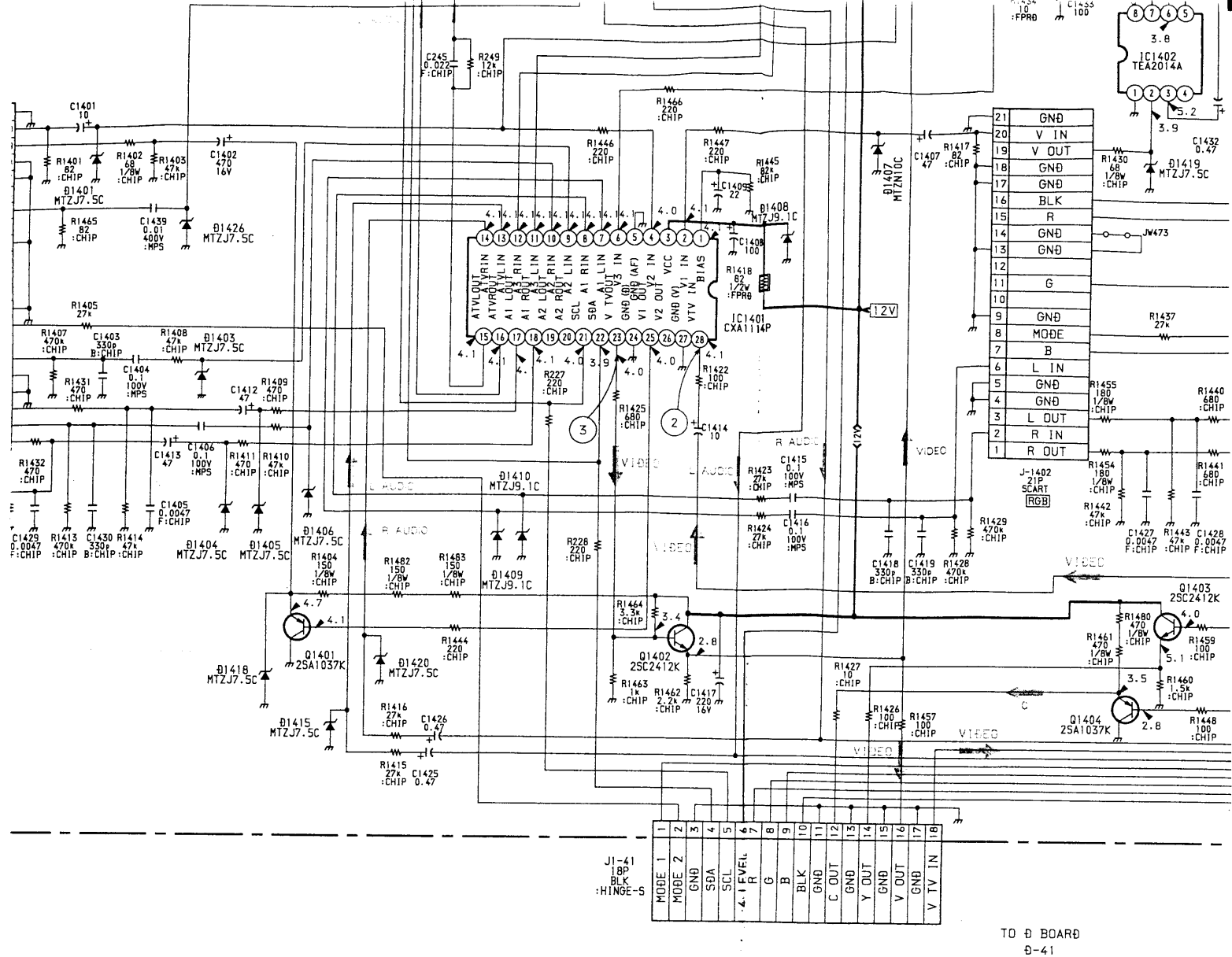










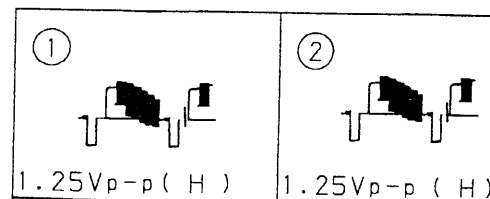


### J1 BOARD \*MARK

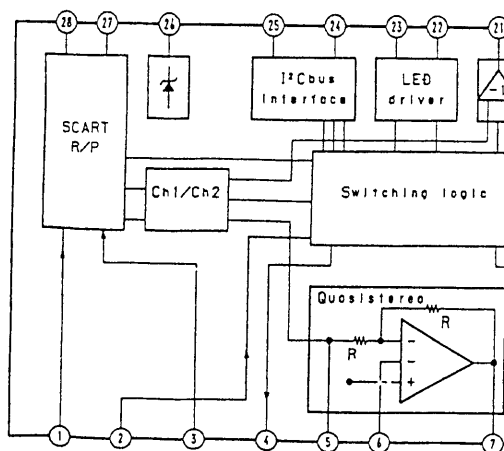
	25 INCH	29 INCH
C1512	0.0068 400V	-
C1514	0.0022 250V	-
C1515	820P	-
R1515	680K	-
R1520	470K	30K
R1550	JW	1 W F

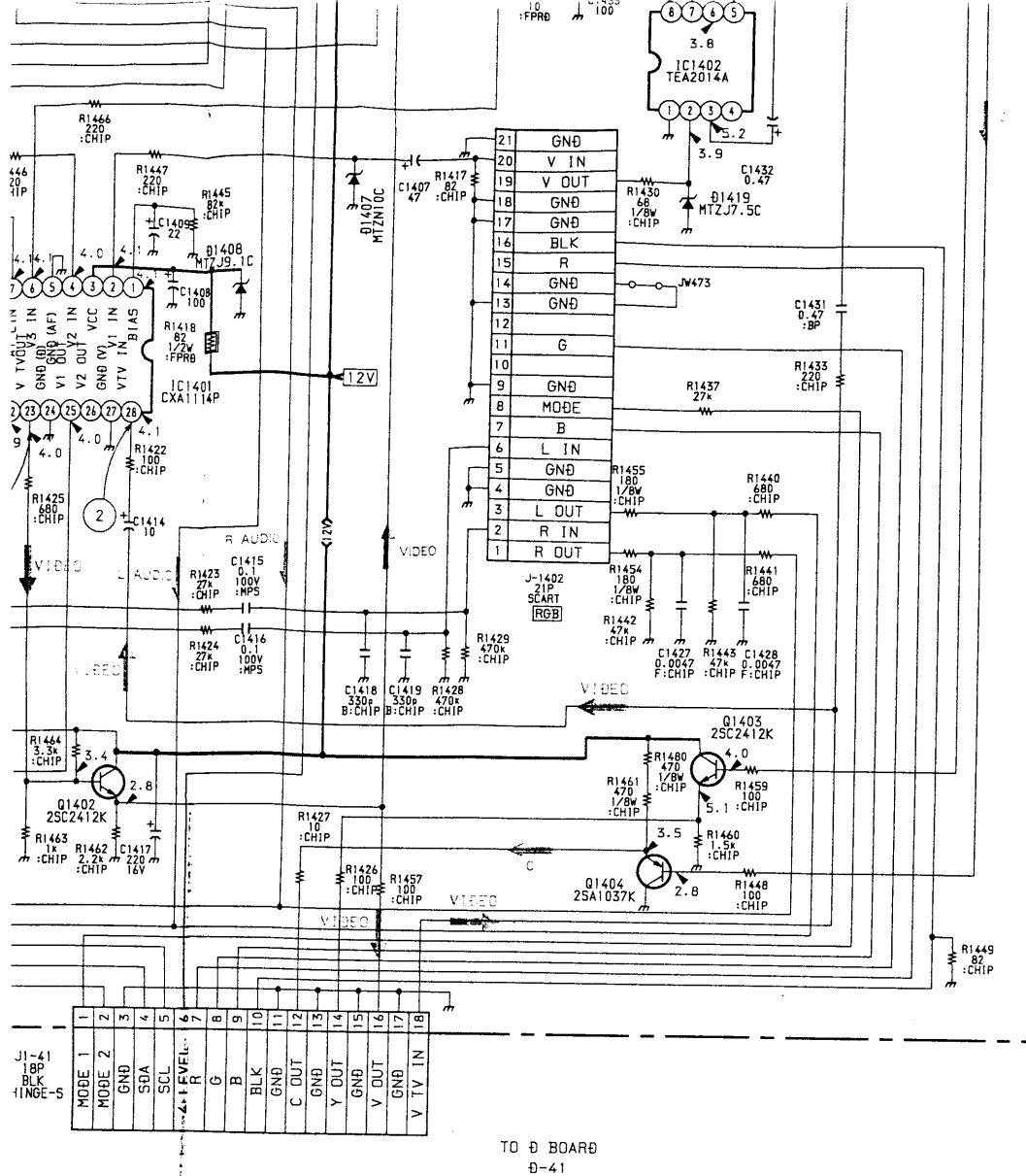
- : NOT MOUNTED

### • WAVEFORMS J1 BOARD



### J1 BOARD IC201 TDA6200

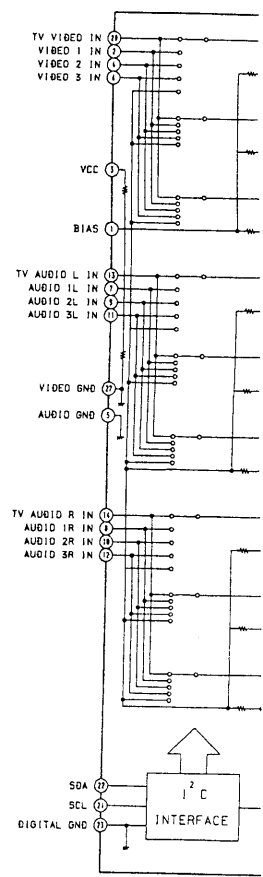




J1-44  
12P  
S-MICRO  
TO Ø BOARD  
Ø-45  
TO Ø BOARD  
Ø-44

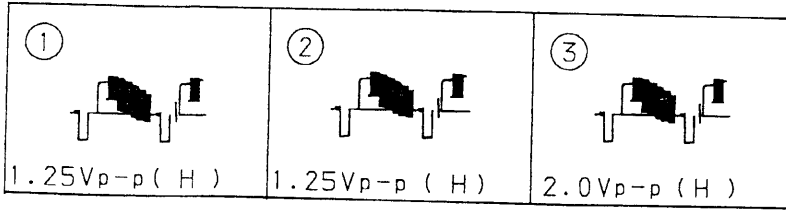
D1415	MTZ-7.
D1418	MTZ-7.
D1419	MTZ-7.
D1420	MTZ-7.
D1421	MTZ-7.
D1422	MTZ-7.
D1423	MTZ-7.
D1424	MTZ-7.
D1425	MTZ-7.
D1426	MTZ-7.
D1501	RGP100
D1502	1SS133
D1503	1SS133
D1504	1SS133
D1505	1SS133
D1506	MTZJ-T
D1507	1SS133
D1510	1SS133

J1 BOARD IC1401 (C)



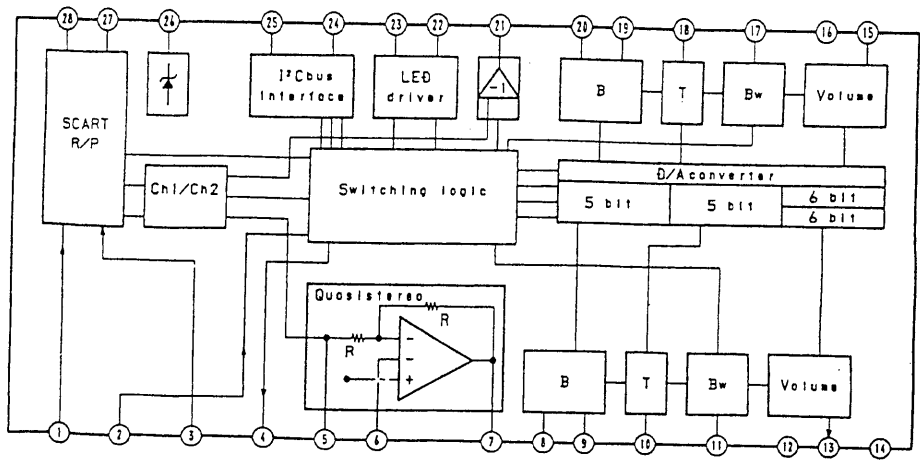
• WAVEFORMS J1 BOARD

NCH	29INCH
3	400V
2	250V
20P	
30K	
70K	30K
W	1 W F

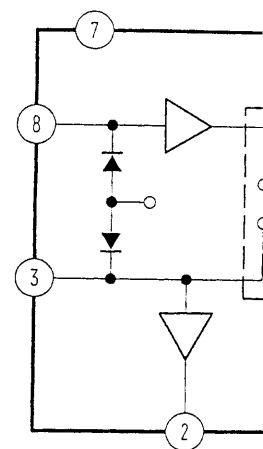


- : NOT MOUNTED

J1 BOARD IC201 TDA6200

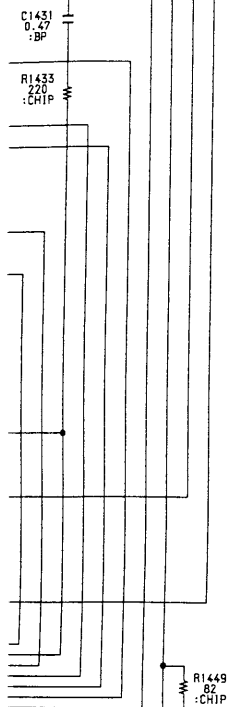


J1 BOARD IC1402 1

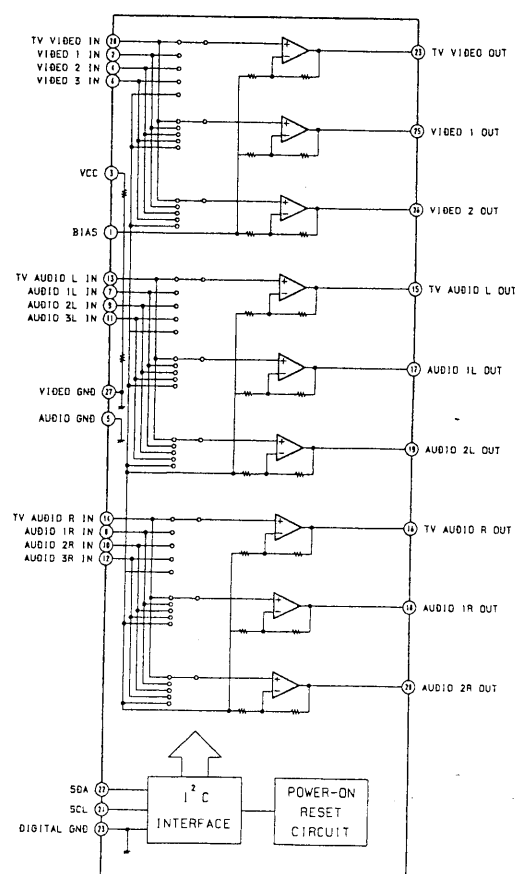


WHI-1  
S-MICRO  
TO 0 BOARD  
0-45  
TO 0 BOARD  
0-44

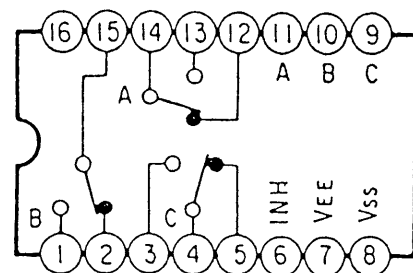
D1418	MTZ-7.5CJ	PROTECT
D1419	MTZ-7.5C	PROTECT
D1420	MTZ-7.5C	PROTECT
D1421	MTZ-7.5CJ	PROTECT
D1422	MTZ-7.5CJ	PROTECT
D1423	MTZ-7.5CJ	PROTECT
D1424	MTZ-7.5CJ	PROTECT
D1425	MTZ-7.5CJ	PROTECT
D1426	MTZ-7.5CJ	PROTECT
D1501	RGP10GPKG23	PROTECT
D1502	1SS133	DECOUPLING H SIZE
D1503	1SS133	CLIPPING V PARABORA
D1504	1SS133	CLIPPING H PULSE
D1505	1SS133	REG
D1506	MTZJ-T-77-36D	PROTECT
D1507	1SS133	PROTECT
D1510	1SS133	REG



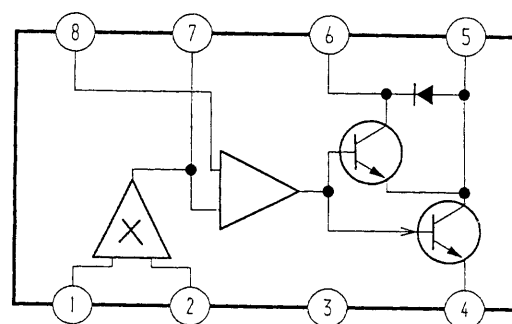
J1 BOARD IC1401 CXA1114P



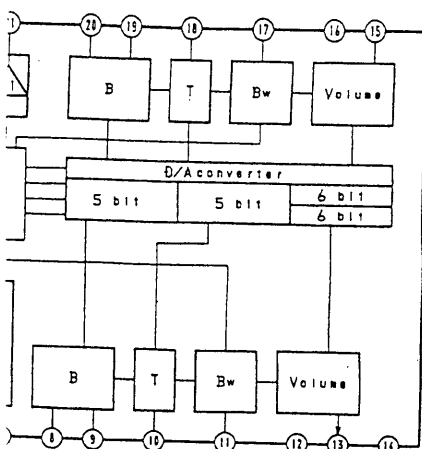
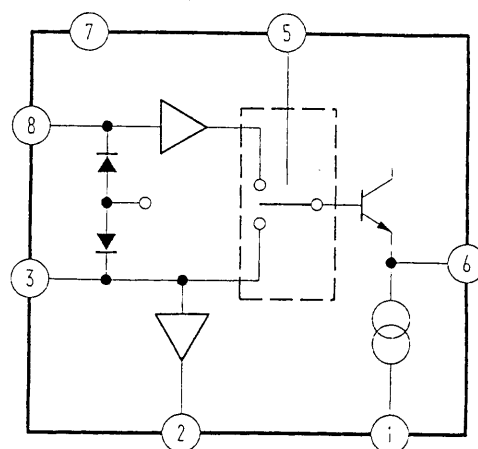
J1 BOARD IC1403 MC14053BCP



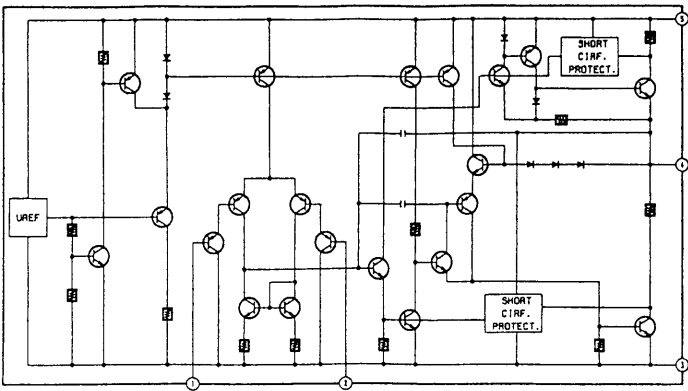
J1 BOARD IC1501 TEA2031A \*



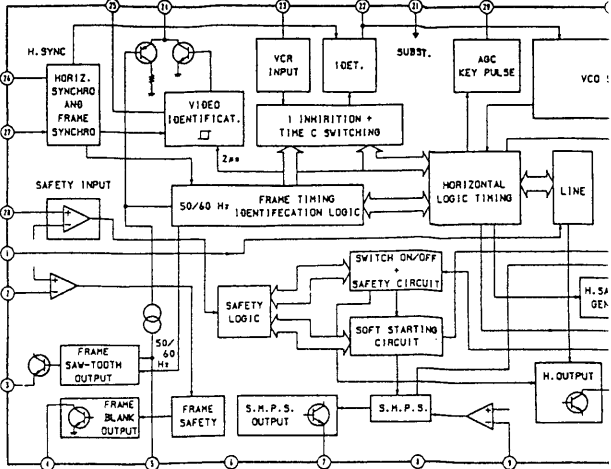
J1 BOARD IC1402 TEA2014A



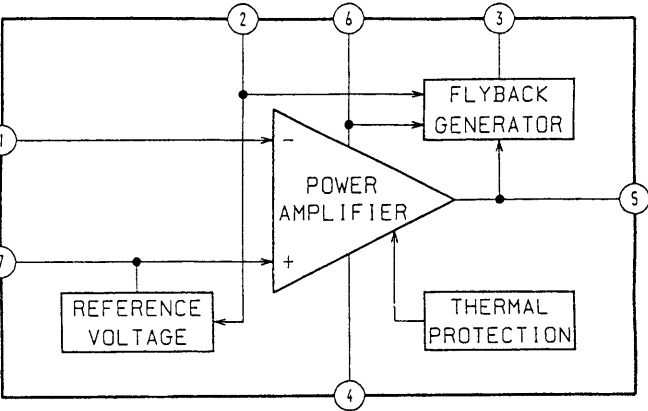
D BOARD IC251/261 TDA2050



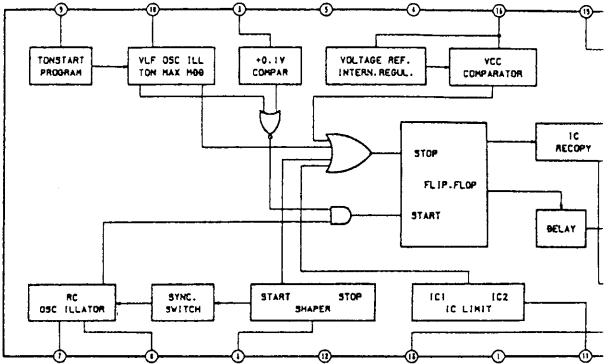
D BOARD IC501 TEA2028B



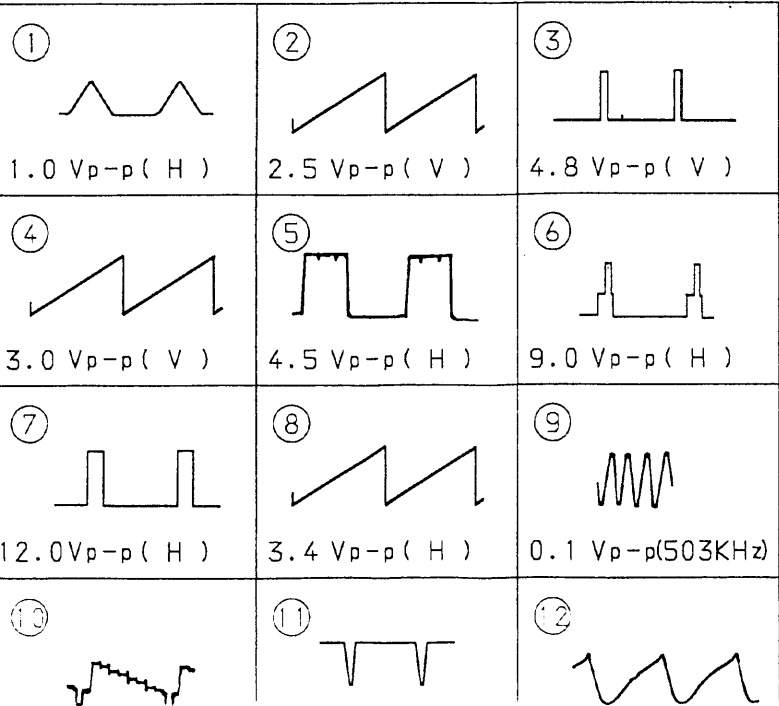
D BOARD IC502 TDA8170

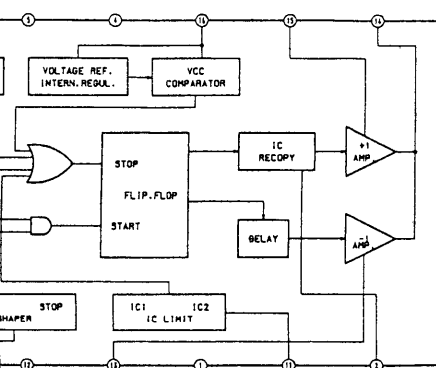
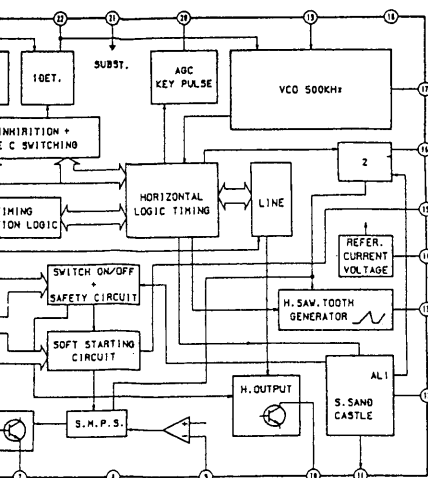


D BOARD IC601 TEA2260



WAVEFORMS D BOARD





## • D BOARD

IC001	SDA20560-A012	TUNING CTL
IC002	MC14051BCP	ON SCREEN DISPLAY
IC003	BA4558	AFT COMPARATOR
IC005	SDA2546	MEMORY
IC251	TDA2050	AUDIO OUT (L)
IC261	TDA2050	AUDIO OUT (R)
IC501	TEA2028B	DEFLECTION PROCESSOR
IC502	TDA8170	V OUT
IC601	TEA2260	PRIMARY SMRS CTL
IC604	TEA7605	+5V REG
IC608	TYA7812CT	+12V REG
Q001	DTC144EK	50/60Hz SW
Q002	DTC144EK	BLK SW
Q003	2SA1037-K	SYNC SEPARATOR
Q004	2SA1037-K	SYNC SEPARATOR
Q005	DTC144EK	Y/C SW
Q006	DTC144EK	FRONT/REAR SW
Q007	2SC2412-K	MODE 2 SW
Q008	2SC2412-K	MODE 1 SW
Q009	2SC2412-K	MUTE SW
Q010	2SC2412-K	RESET
Q251	2SC2412-K	AUDIO MUTE
Q261	2SC2412-K	AUDIO MUTE
Q271	2SC2412-K	VOLTAGE DETECT
Q502	2SA1037-K	CONSTANT CURRENT SOURCE
Q505	2SD774-4	V CENT
Q506	2SB734-3	V CENT
Q507	2SA1037-K	CANAL +BLK
Q598	2SA1037-K	VIDEO AMP
Q601	2SB1357T114EF	STBY SW
Q602	2SD1548	RE3 OUT
Q603	2SB1357T114EF	STBY SW
Q604	2SA1037-K	FAST ON/OFF
Q605	2SC2412-K	STBY SW
Q606	2SC2412-K	STBY SW
Q607	2SD2096	+12V REG
Q608	2SC2412-K	STBY SW
Q609	2SD789	STBY SW
Q801	2SC2412-K	ABL AMP
Q804	2SD1941-06	H OUT
Q805	2SC2688-L	H DRIVER
D001	MTZJ-6.8C	PROTECT
D002	MTZJ-6.8C	PROTECT
D003	1SS133	HUE CTL
D005	MTZJ5.6B	PROT
D006	MTZJ33A	VC VOLTAGE REGULATION
D007	MTZJ3.9B	PLOT RESET
D009	MTZJ5.6B	CLIPPING SYNC LEVEL
D010	MTZJ6.2B	PROT
D011	MTZJ6.2B	PROT
D012	1SS133	PROT
D013	MTZJ6.8C	PROT
D271	MTZJ13B	VOLTAGE DETECT
D272	1SS133	DECOUPLING MUTE AUDIO
D501	1SS133	START
D504	GP08DPKG23	V PULSE OUT
D506	DA204K	CURRENT
D508	1SS133	CANAL +BLK LEVEL
D509	1SS133	V LIN
D511	GP08DPKG23	PROT
D512	GP08DPKG23	PROT
D513	MTZJ4.7B	PROT
D514	1SS133	PROT
D515	1SS133	PROT
D601	D4SB60L-F	AC RECT
D602	RGP10GPKG23	RE RECT
D603	GP08DPKG23	SMS DRIVE 1
D604	GP08DPKG23	SMS DRIVE 2
D605	GP08DPKG23	SMS DRIVE 3
D606	RGP10GPKG23	+12V RECT
D607	RGP10GPKG23	RE RECT
D608	ERC25-06S	PLSE CLIPPER
D609	MTZJ33A	FAT ON/OFF-1

A

B

C

D

E

F

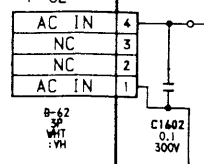
G

H

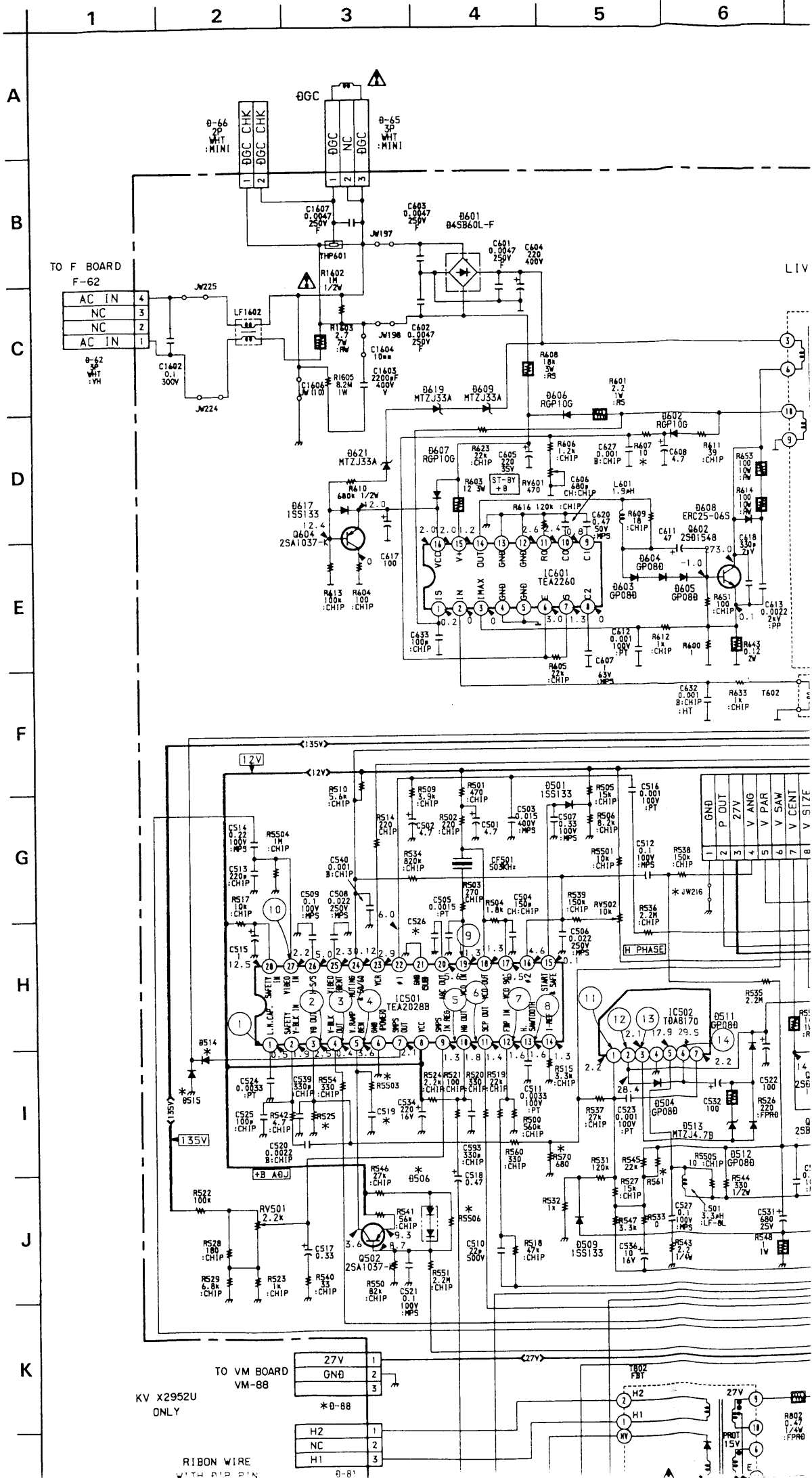
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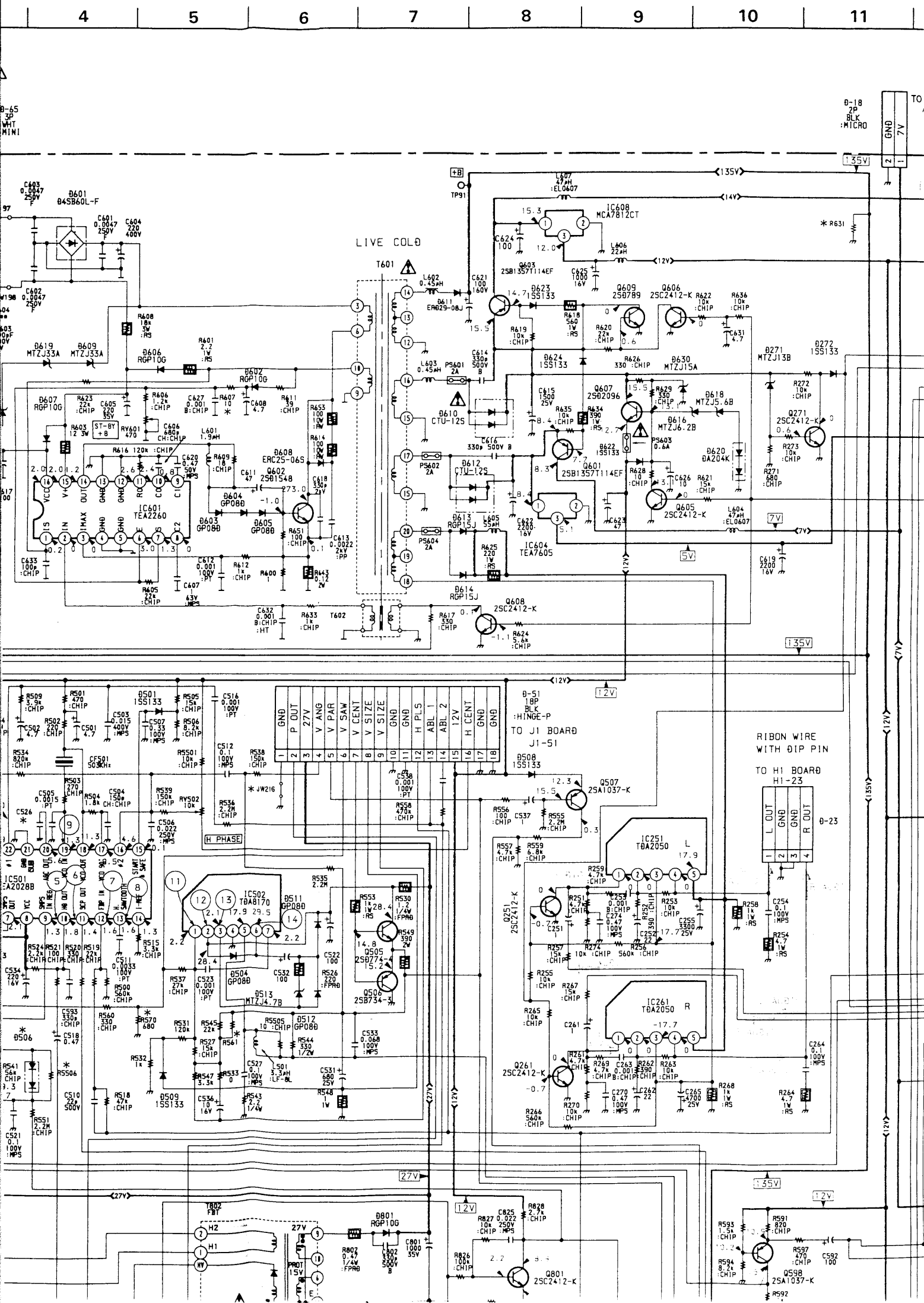
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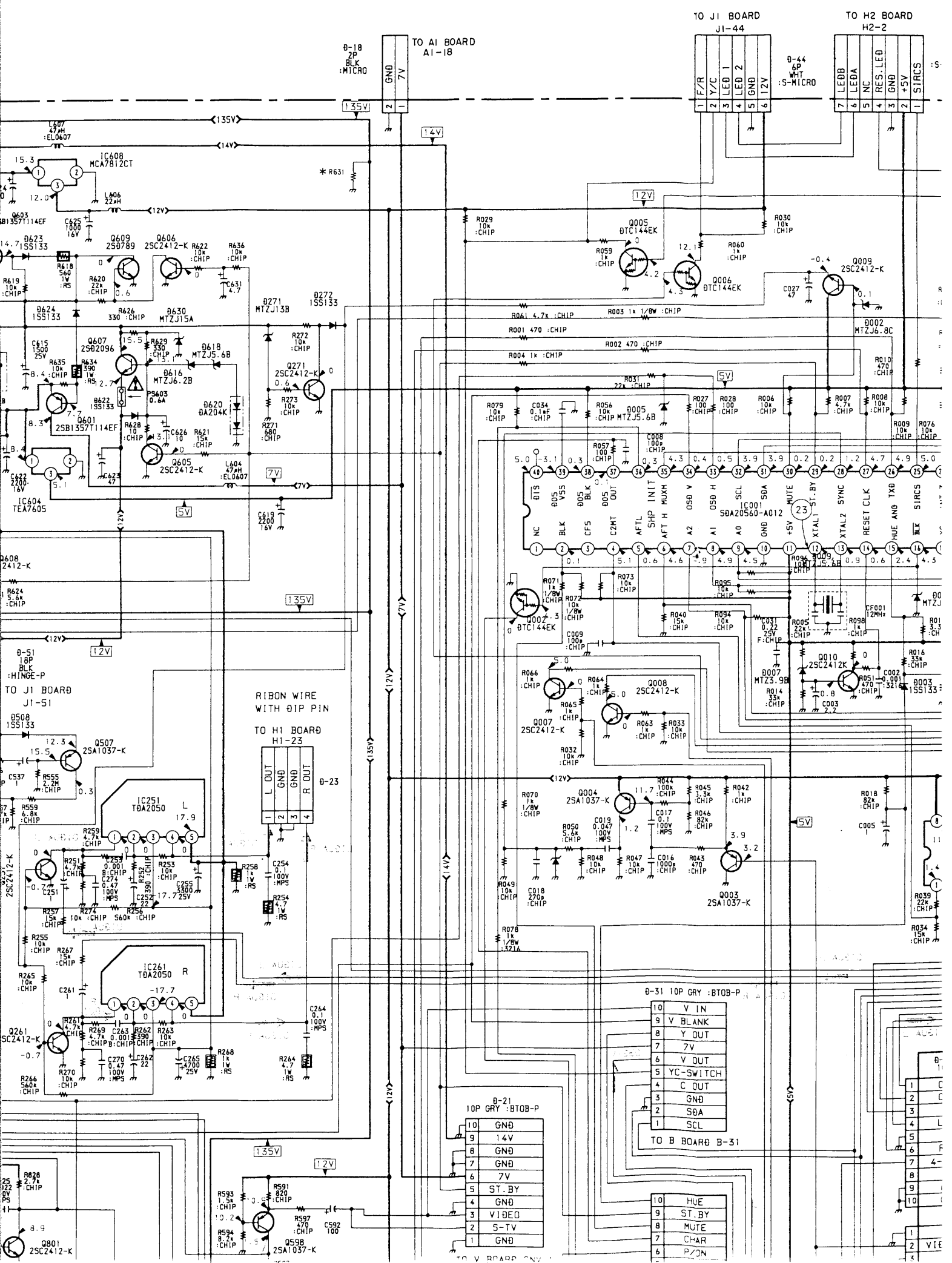
K

TO F BOARD  
F-62KV X2952U  
ONLY

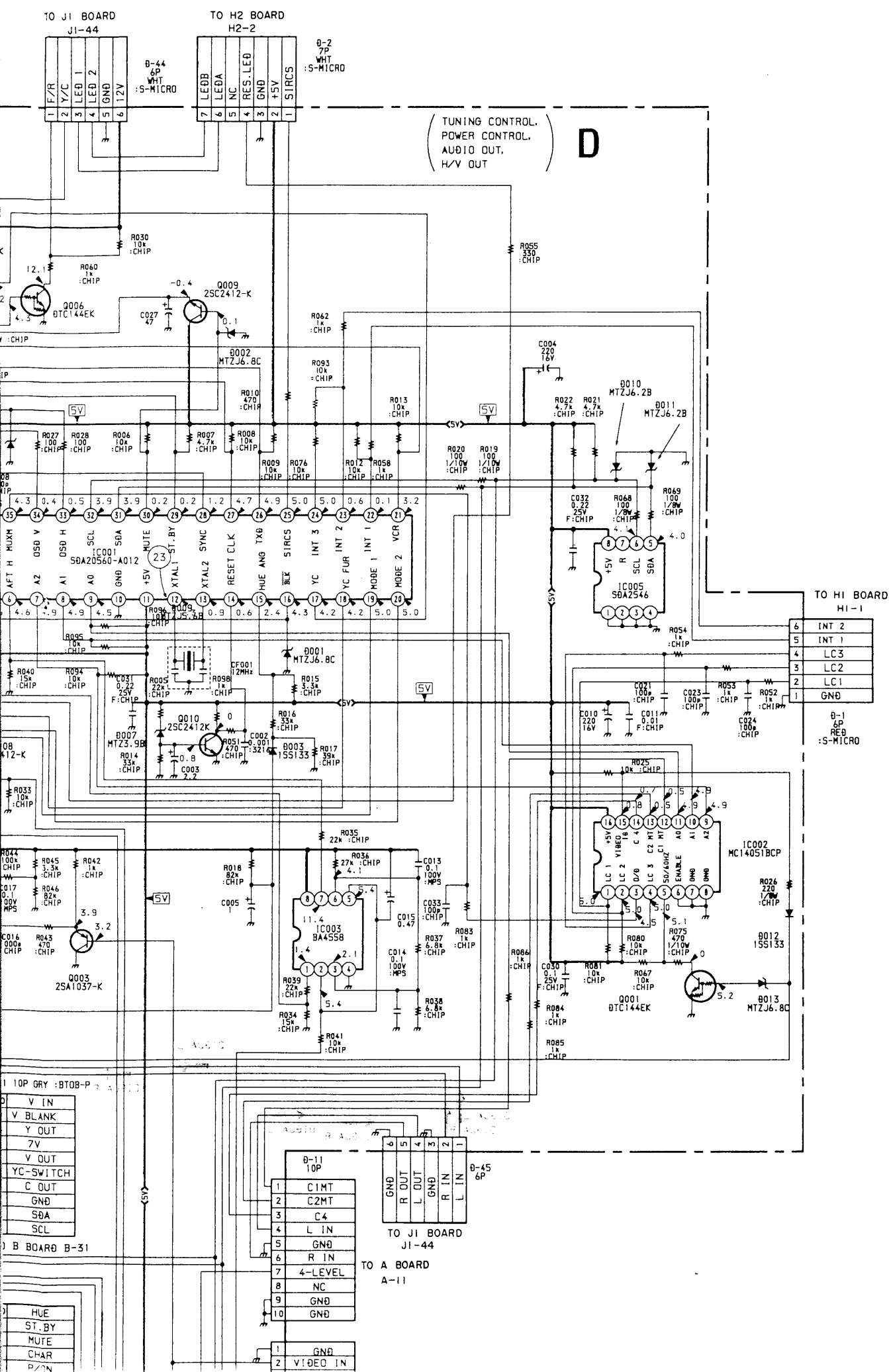
NGING CTL  
 SCREEN DISPLAY  
 T COMPARATOR  
 EMORY  
 AUDIO OUT (L)  
 AUDIO OUT (R)  
 FLECTION PROCESSOR  
 OUT  
 PRIMARY SMRS CTL  
 5V REG  
 12V REG  
 /60Hz SW  
 K SW  
 NC SEPARATOR  
 NC SEPARATOR  
 /C SW  
 FRONT/REAR SW  
 CODE 2 SW  
 CODE 1 SW  
 MUTE SW  
 ESET  
 AUDIO MUTE  
 AUDIO MUTE  
 LTAGE DETECT  
 NSTANT CURRENT SOURCE  
 CENT  
 CENT  
 ANAL +BLK  
 DEO AMP  
 TBY SW  
 ES OUT  
 TBY SW  
 AST ON/OFF  
 TBY SW  
 TBY SW  
 12V REG  
 TBY SW  
 TBY SW  
 BL AMP  
 OUT  
 DRIVER  
 PROTECT  
 PROTECT  
 UE CTL  
 ROT  
 C VOLTAGE REGULATION  
 OT RESET  
 LIPPING SYNC LEVEL  
 ROT  
 ROT  
 ROT  
 ROT  
 VOLTAGE DETECT  
 ECOUPLING MUTE AUDIO  
 TART  
 PULSE OUT  
 CURRENT  
 ANAL +BLK LEVEL  
 / IN  
 PROT  
 PROT  
 PROT  
 PROT  
 PROT  
 ACRECT  
 REI RECT  
 SMS DRIVE 1  
 SMS DRIVE 2  
 SMS DRIVE 3  
 +V RECT  
 RE RECT  
 PLSE CLIPPER  
 FAT ON/OFF-1

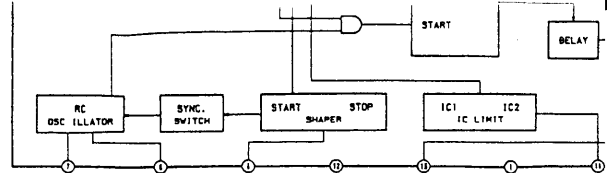
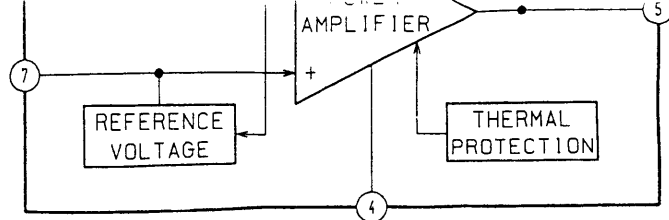




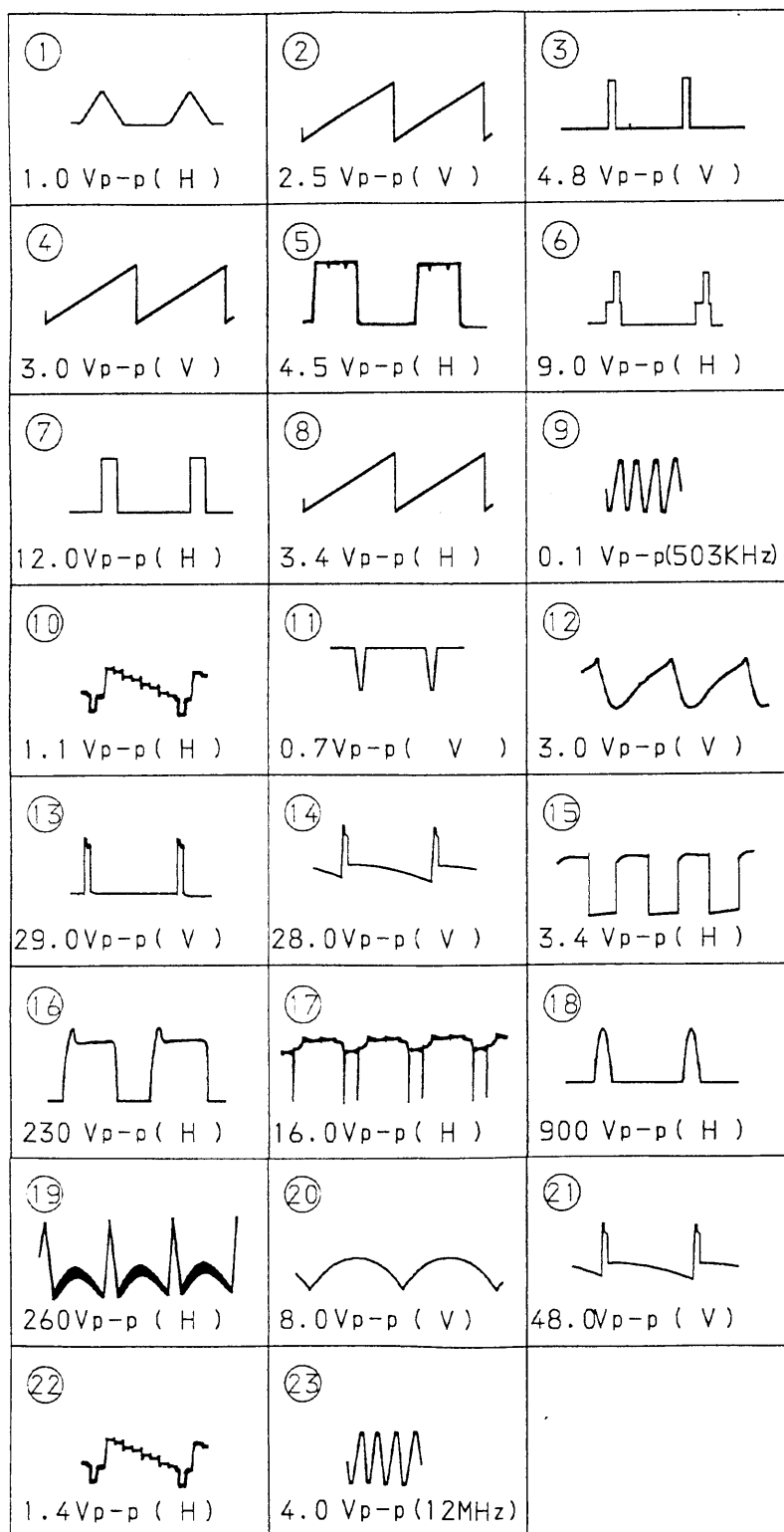








# • WAVEFORMS D BOARD

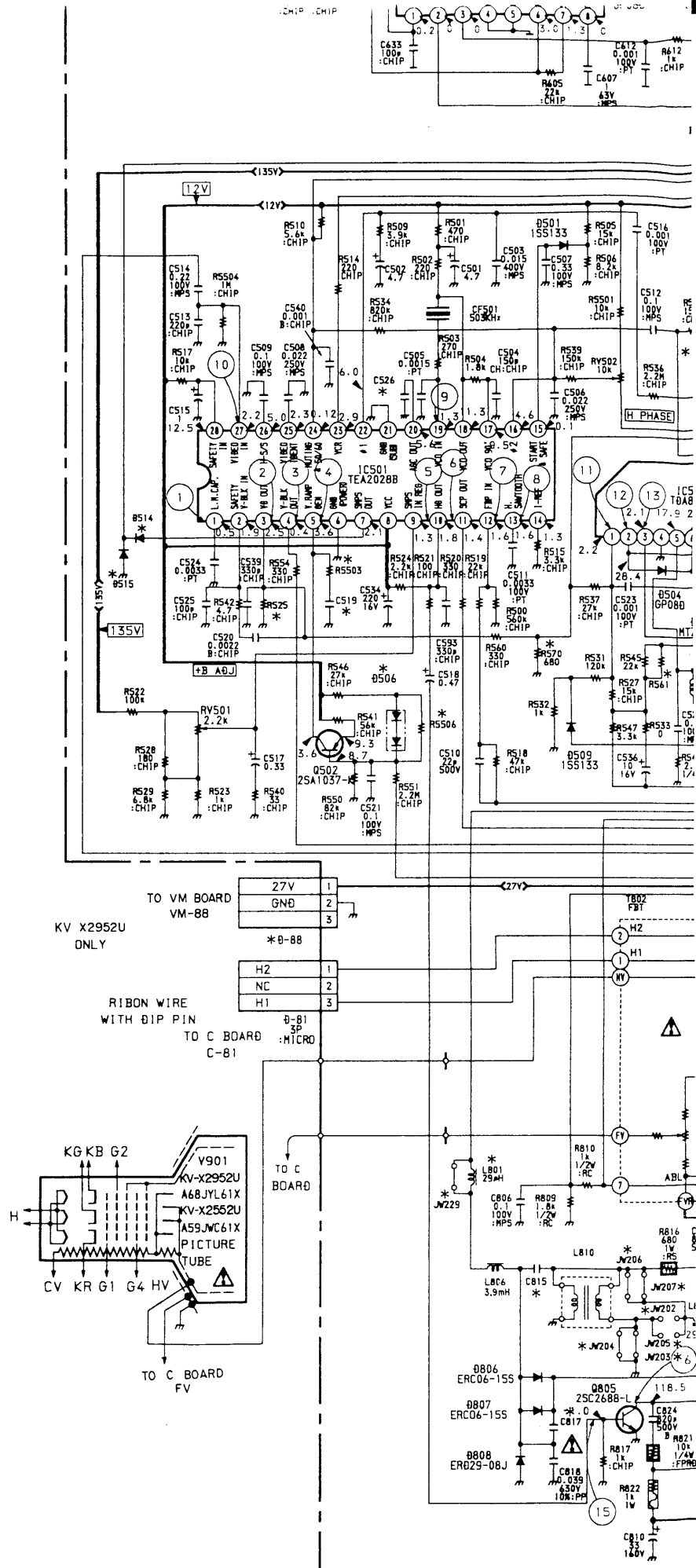


## D BOARD \*MARK

	25 INCH	29 INCH		25 INCH
C519	0.47	0.33	JW206	○
C526	27P	22P	JW207	○
C815	1 200V	0.82 200V	JW216	○
C817	0.015 1.4KV	0.017 1.4KV	JW229	○
C821	680P 2KV	470P 2KV		
			L801	—
D-88	—	3P		
			R525	1K
D506	DA204K	—	R561	—
D514	JW	1SS133	R570	—
D515	—	1SS133	R607	4.7K
			R631	27K
JW202	—	○	R812	68K 1/2W
JW203	○	—	R5503	4.7
JW204	○	—	R5506	—
JW205	—	○		

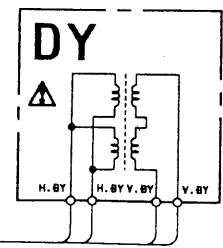
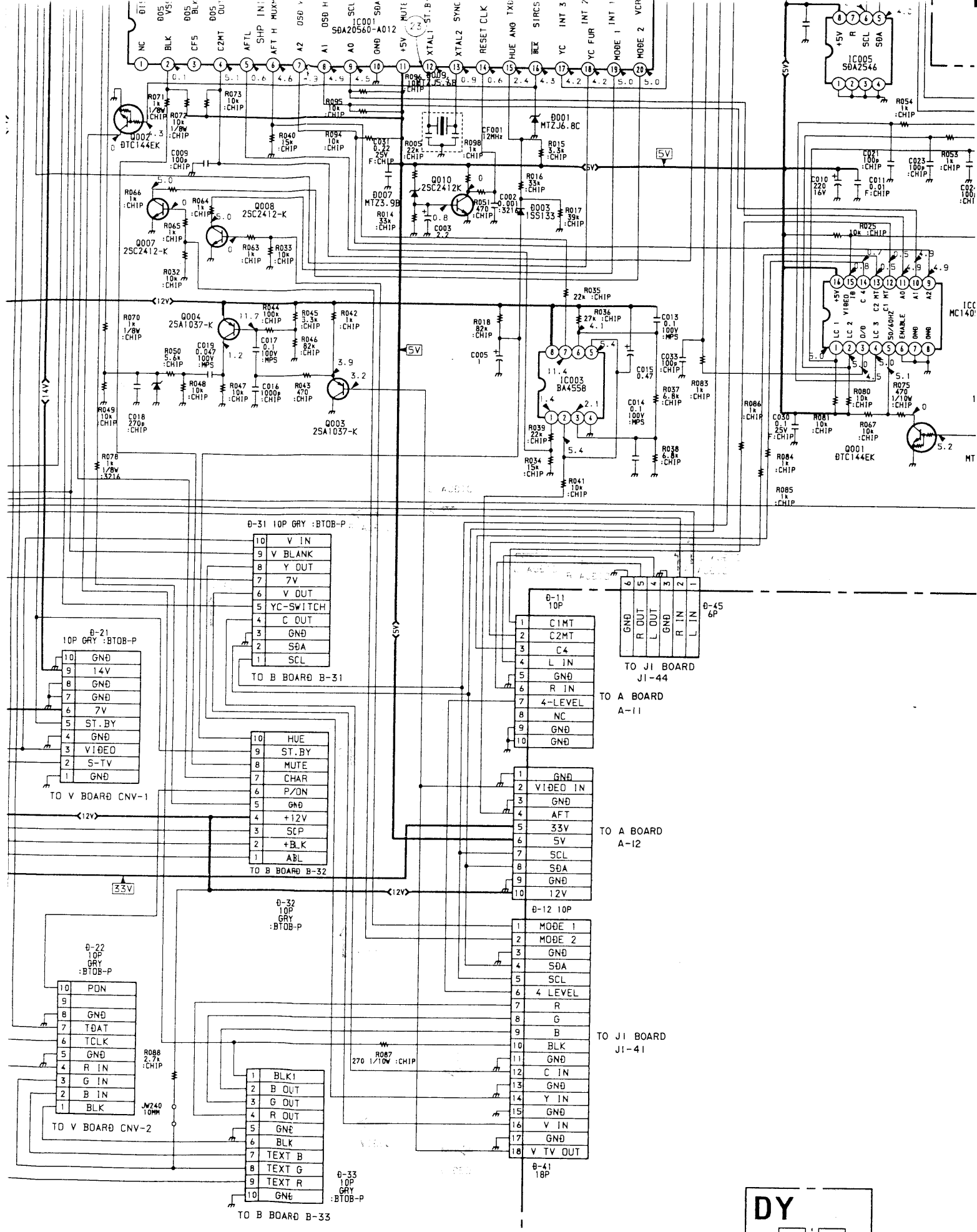
Q507	2SA1037-K	CANAL +BLK
Q598	2SA1037-K	VIDEO AMP
Q601	2SB1357T114EF	STBY SW
Q602	2SD1548	RES OUT
Q603	2SB1357T114EF	STBY SW
Q604	2SA1037-K	FAST ON/OFF
Q605	2SC2412-K	STBY SW
Q606	2SC2412-K	STBY SW
Q607	2SD2096	+12V REG
Q608	2SC2412-K	STBY SW
Q609	2SD789	STBY SW
Q801	2SC2412-K	ABL AMP
Q804	2SD1941-06	H OUT
Q805	2SC2688-L	H DRIVER
D001	MTZJ-6.8C	PROTECT
D002	MTZJ-6.8C	PROTECT
D003	1SS133	HUE CTL
D005	MTZJ5.6B	PROT
D006	MTZJ33A	VC VOLTAGE REGULATION
D007	MTZJ3.9B	PL0T RESET
D009	MTZJ5.6B	CLIPPING SYNC LEVEL
D010	MTZJ6.2B	PROT
D011	MTZJ6.2B	PROT
D012	1SS133	PROT
D013	MTZJ6.8C	PROT
D271	MTZJ13B	VOLTAGE DETECT
D272	1SS133	DECOUPLING MUTE AUDIO
D501	1SS133	START
D504	GP08DPKG23	V PULSE OUT
D506	DA204K	CURRENT
D508	1SS133	CANAL +BLK LEVEL
D509	1SS133	V UN
D511	GP08DPKG23	PROT
D512	GP08DPKG23	PROT
D513	MTZJ4.7B	PROT
D514	1SS133	PROT
D515	1SS133	PROT
D601	D4SB60L-F	AC RECT
D602	RGP10GPKG23	REF RECT
D603	GP08DPKG23	SMPS DRIVE 1
D604	GP08DPKG23	SMPS DRIVE 2
D605	GP08DPKG23	SMPS DRIVE 3
D606	RGP10GPKG23	+12V RECT
D607	RGP10GPKG23	REF RECT
D608	ERC25-06S	PLISE CLIPPER
D609	MTZJ33A	FAST ON/OFF-1
D610	CTU-12S	+11V RECT
D611	ERD29-08J	+15V RECT
D612	CTU-12S	+7V RECT
D613	RGP15J	AFV RECT-1
D614	RGP15J	AFV RECT-2
D616	MTZJ6.2B	+11V REF
D617	1SS133	PROT
D618	MTZJ5.6B	+11V REF
D619	MTZJ33A	FAST ON/OFF-2
D620	DA204K	+12V REF
D621	MTZJ33A	FAST ON/OFF-3
D622	1SS133	PROT
D623	1SS133	DECOUPLING STBY
D624	1SS133	DECOUPLING STBY
D630	MTZJ15A	+2V REF
D801	RGP10G	+12V RECT
D802	RGP10G	+200V RECT
D803	RGP02-17	Q RECT
D804	GP08D	H CENTER-1
D805	GP08D	H CENTER-2
D806	ERC06-15S	H DAMPER-1
D807	ERC06-15S	H DAMPER-2
D808	ERC29-08J	PW DAMPER

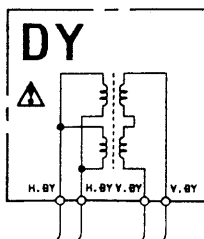
1037-K	CANAL +BLK
1037-K	VIDEO AMP
1357T114EF	STBY SW
1548	RES OUT
1357T114EF	STBY SW
1037-K	FAST ON/OFF
2412-K	STBY SW
2412-K	STBY SW
2096	+12V REG
2412-K	STBY SW
789	STBY SW
2412-K	ABL AMP
1941-06	H OUT
2688-L	H DRIVER
2J-6.8C	PROTECT
2J-6.8C	PROTECT
133	HUE CTL
2J5.6B	PROT
2J33A	VC VOLTAGE REGULATION
2J3.9B	PLDT RESET
2J5.6B	CLIPPING SYNC LEVEL
2J6.2B	PROT
2J6.2B	PROT
133	PROT
2J6.8C	PROT
2J13B	VOLTAGE DETECT
133	DECOUPLING MUTE AUDIO
133	START
8DPKG23	V PULSE OUT
204K	CURRENT
133	CANAL +BLK LEVEL
133	V UN
8DPKG23	PROT
8DPKG23	PROT
2J4.7B	PROT
133	PROT
133	PROT
B60L-F	ACIRECT
10GPKG23	REF RECT
8DPKG23	SMPS DRIVE 1
8DPKG23	SMPS DRIVE 2
8DPKG23	SMPS DRIVE 3
10GPKG23	+12V RECT
10GPKG23	REF RECT
25-06S	PLUSE CLIPPER
2J33A	FAST ON/OFF-1
1-12S	+1V RECT
29-08J	+15V RECT
1-12S	+7V RECT
15J	AFV RECT-1
15J	AFV RECT-2
2J6.2B	+1V REF
133	PROT
2J5.6B	+1V REF
2J33A	FAST ON/OFF-2
204K	+2V REF
2J33A	FAST ON/OFF-3
133	PROT
133	DECOUPLING STBY
133	DECOUPLING STBY
2J15A	+2V REF
10G	+7V RECT
10G	+100V RECT
202-17	G RECT
8D	H-CENTER-1
8D	H-CENTER-2
206-15S	H-DAMPER-1
206-15S	H-DAMPER-2
29-08J	H-DAMPER







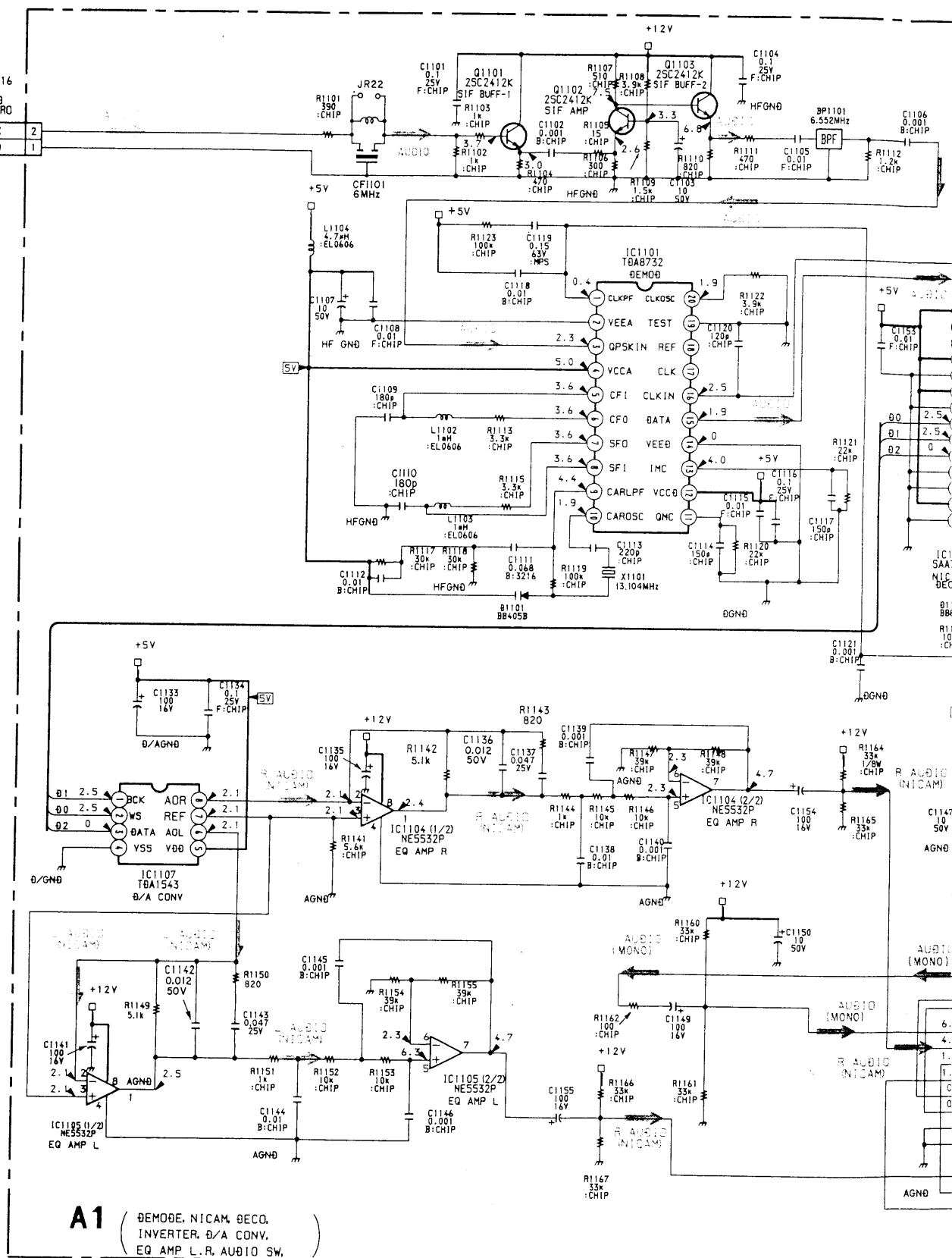


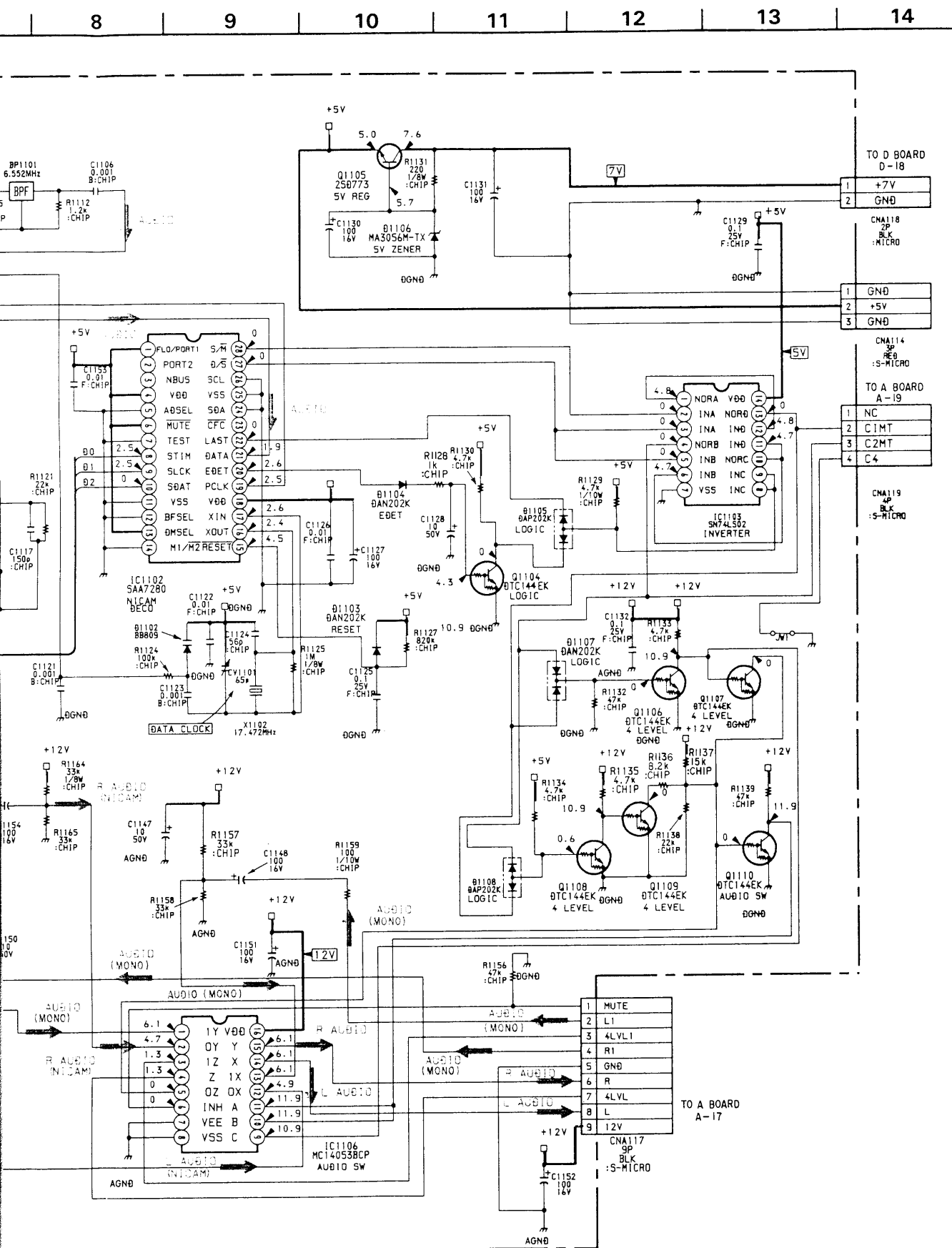




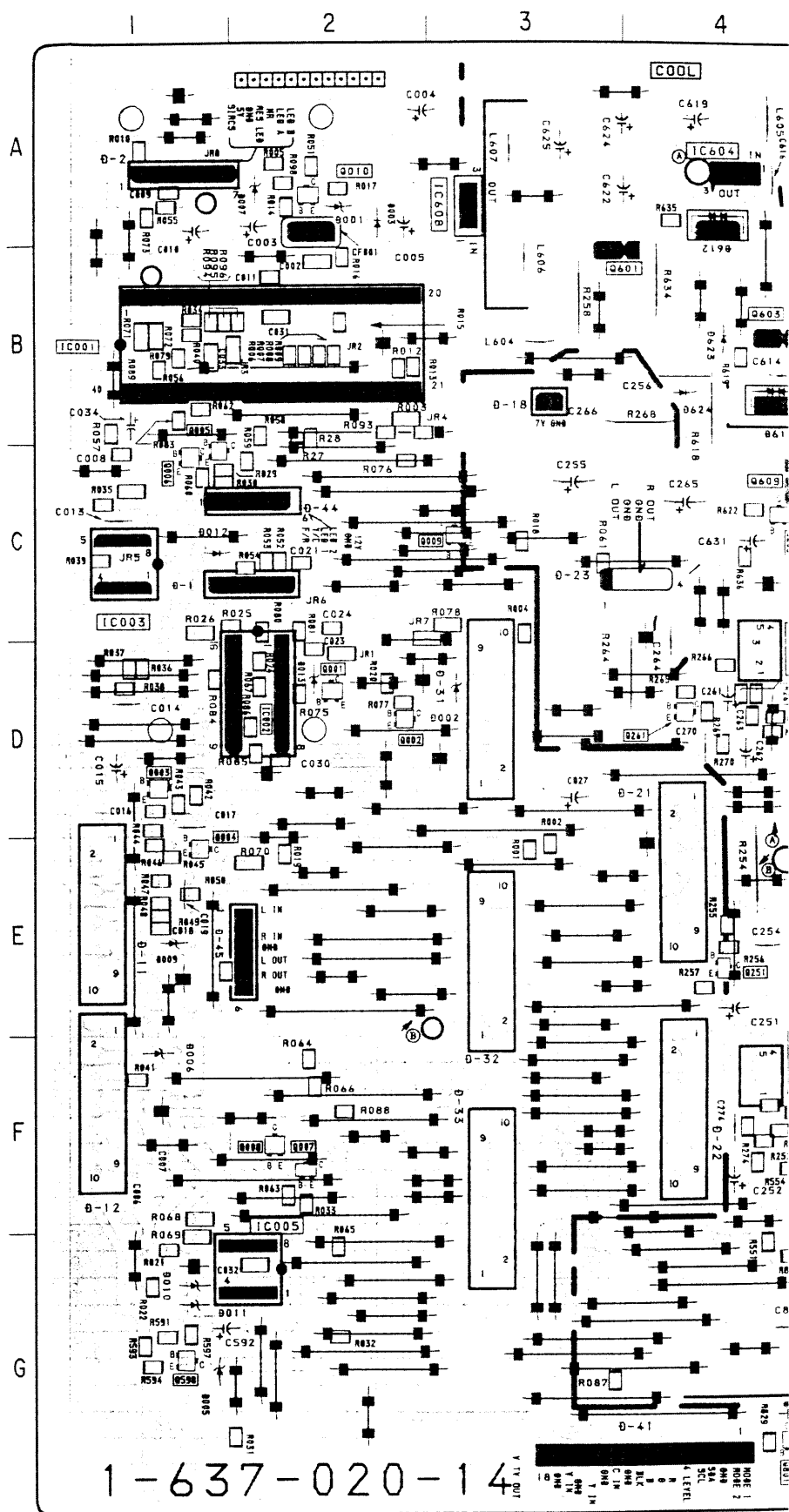
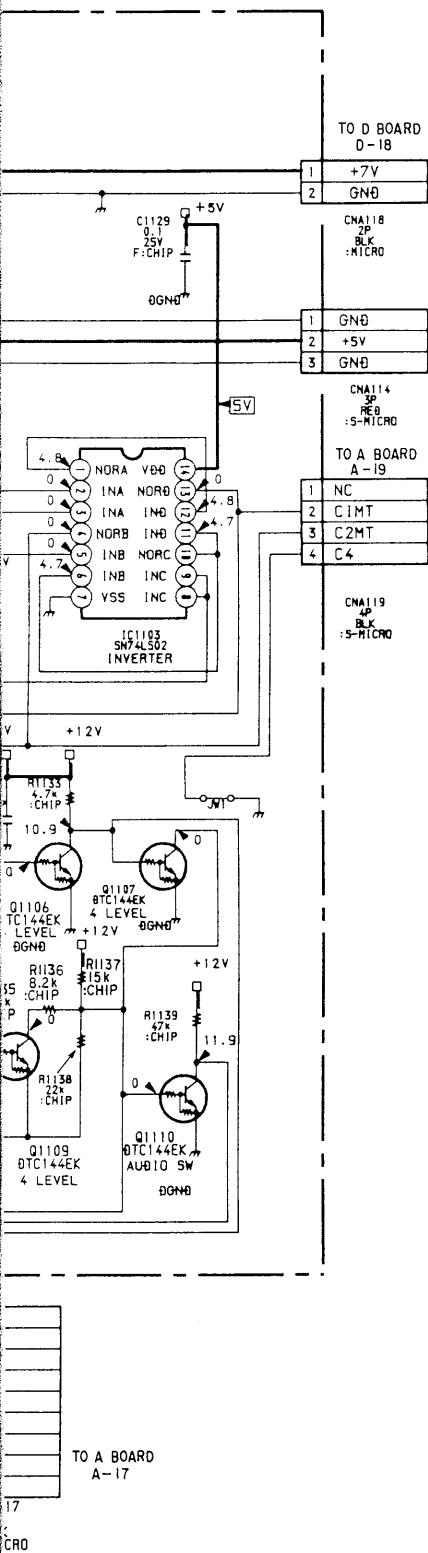
CNA116  
2P  
REB  
:MICRO  
MPX 2  
GND 1

TO A BOARD  
A-16





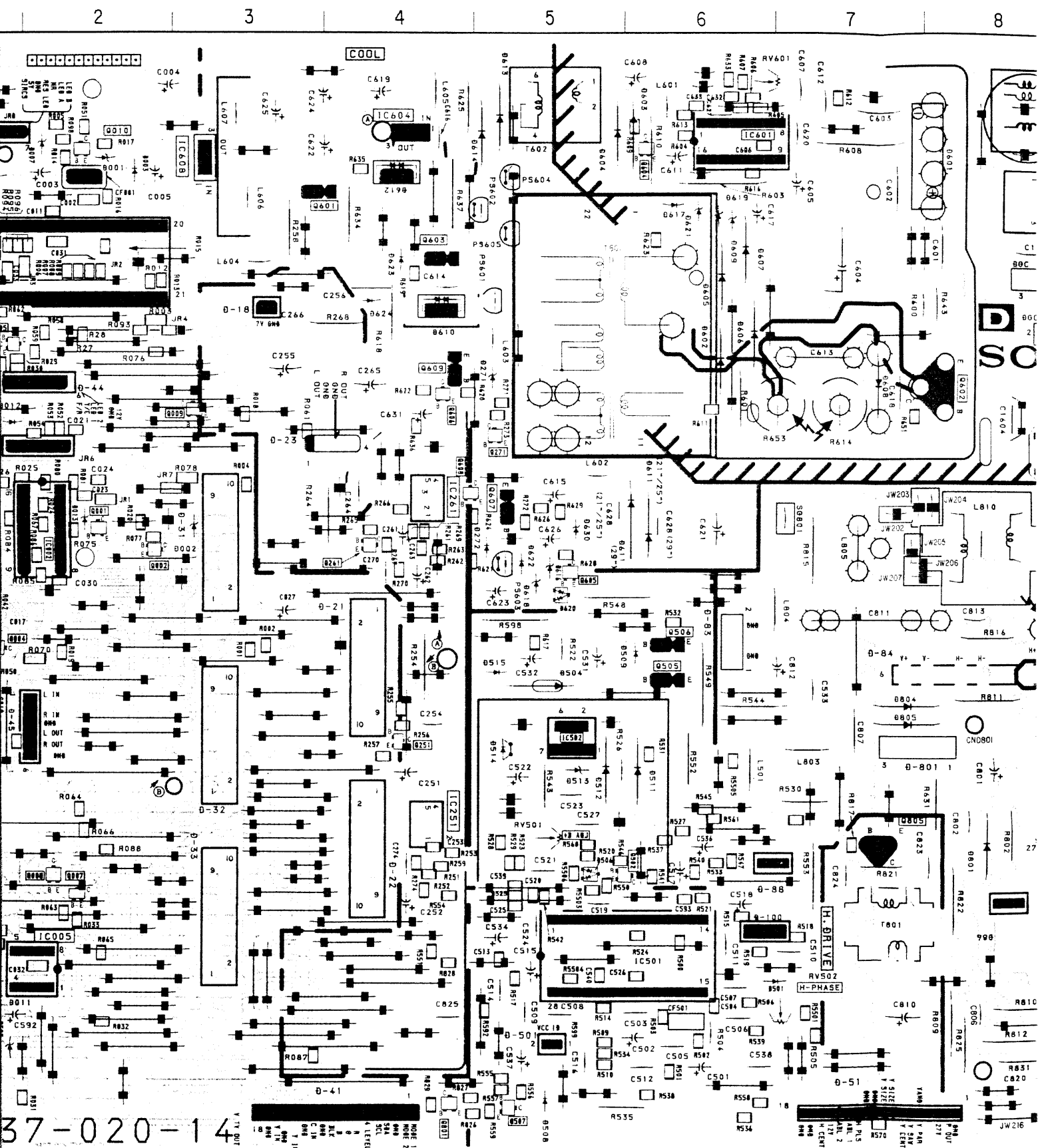
-D Board-

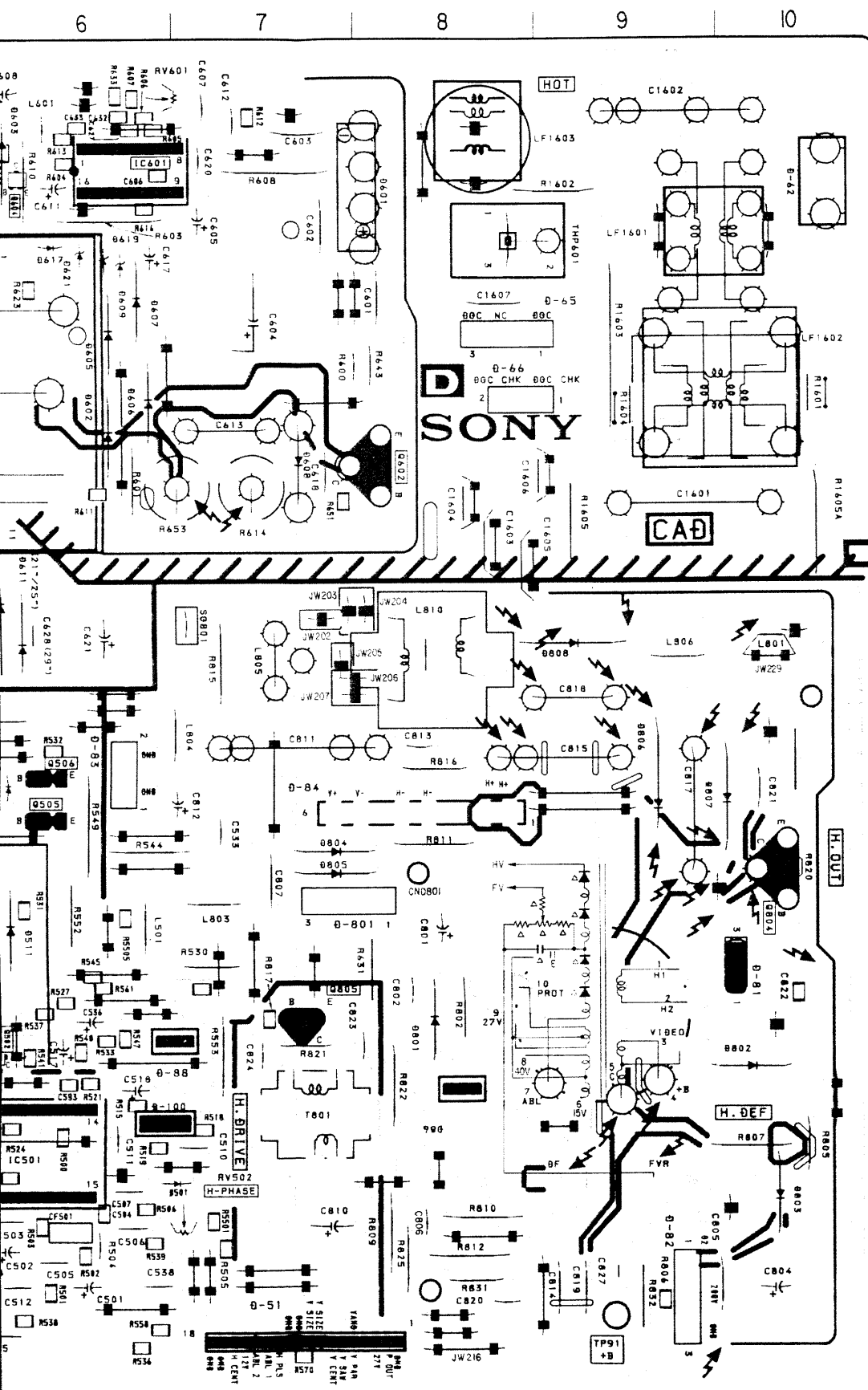


CONTROL,  
CONTROL,  
UT, H/V OUT

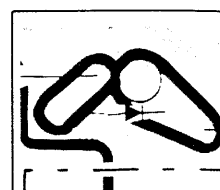
A1

DEMOM, NIKAN DECO,  
INVERTER, D/A CONV,  
EQ AMPL • R, AUDIO SW





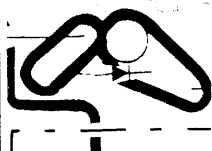
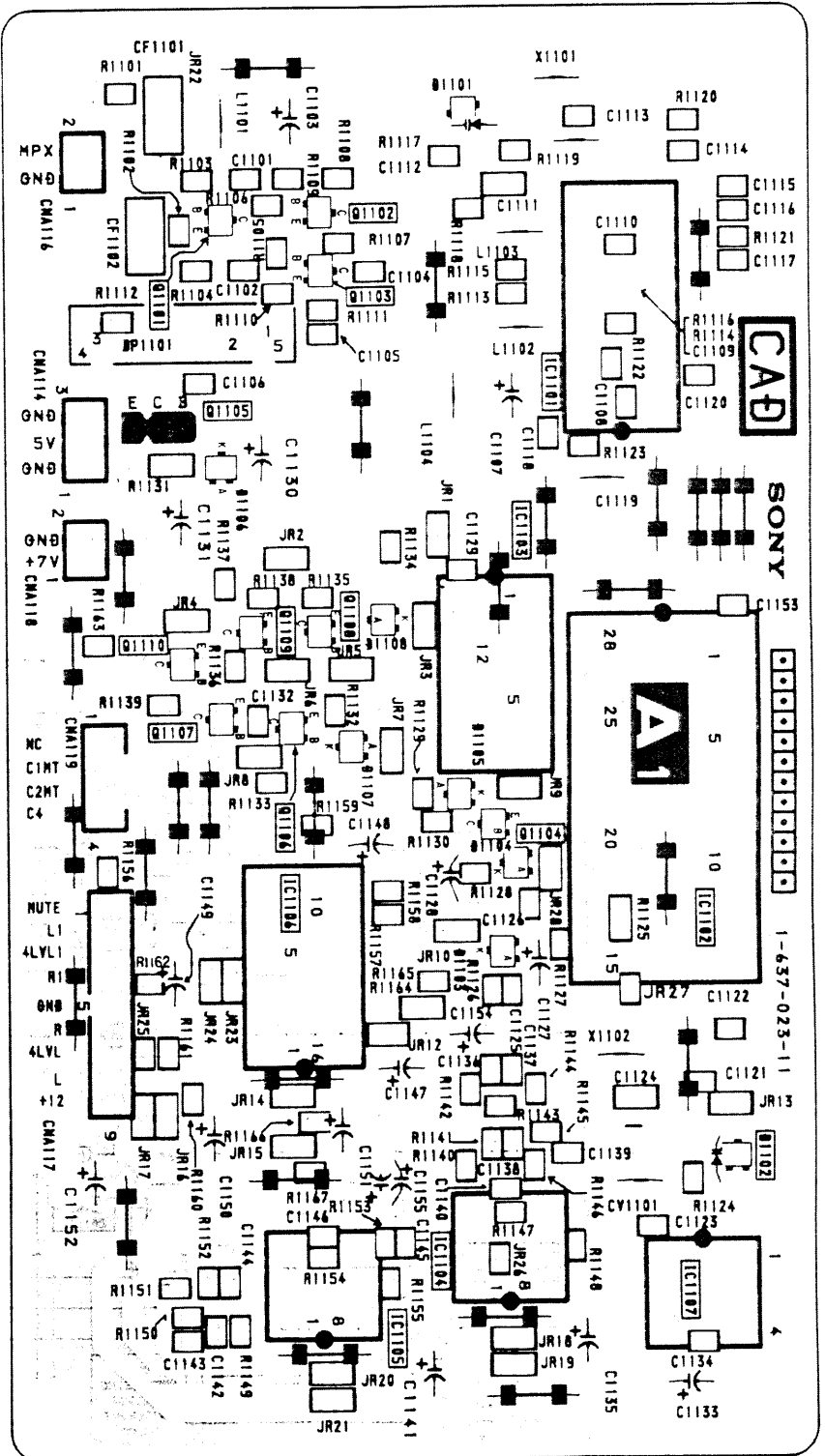
IC		D012	C-1
IC001	B-2	D013	D-2
IC002	C-2	D271	C-5
IC003	C-1	D272	D-5
IC005	G-2	D501	G-7
IC251	F-4	D504	E-5
IC261	C-4	D506	F-5
IC501	G-6	D508	G-5
IC502	E-5	D511	E-6
IC601	A-6	D512	E-5
IC604	A-4	D513	E-5
IC608	A-3	D514	E-5
		D515	E-5
		D601	A-8
		D602	C-6
		D603	A-5
TRANSISTOR		D604	A-4
Q001	C-2	D605	B-6
Q002	C-2	D606	B-6
Q003	D-1	D607	B-6
Q004	D-4	D608	C-7
Q005	C-1	D609	B-6
Q006	C-1	D610	B-4
Q007	F-2	D611	D-6
Q008	F-2	D612	A-4
Q009	C-3	D613	A-5
Q010	A-2	D614	A-5
Q251	E-4	D616	D-5
Q261	D-4	D617	B-6
Q271	C-5	D618	D-5
Q502	F-5	D619	B-6
Q505	E-6	D620	D-5
Q506	D-6	D621	B-6
Q507	G-4	D622	D-5
Q598	G-1	D623	B-4
Q601	B-3	D624	B-4
Q602	C-8	D630	D-5
Q603	B-4	D801	F-8
Q604	A-6	D802	F-10
Q605	D-5	D803	G-10
Q606	C-4	D804	E-7
Q607	D-5	D805	E-7
Q608	C-4	D806	E-9
Q609	C-4	D808	D-9
Q801	G-4	VARIABLE RESISTOR	
Q804	E-10	RV501	F-5
Q805	F-7	RV502	G-7
		RV601	A-6
DIODE		TP	
D001	A-2	TP91	G-9
D002	D-3		
D003	A-2		
D005	G-1		
D006	F-1		
D007	A-2		
D009	E-1		
D010	G-1		
D011	G-1		



**NOTE:**  
The circ  
600 Vp-p  
inspectio

-A1 Board-

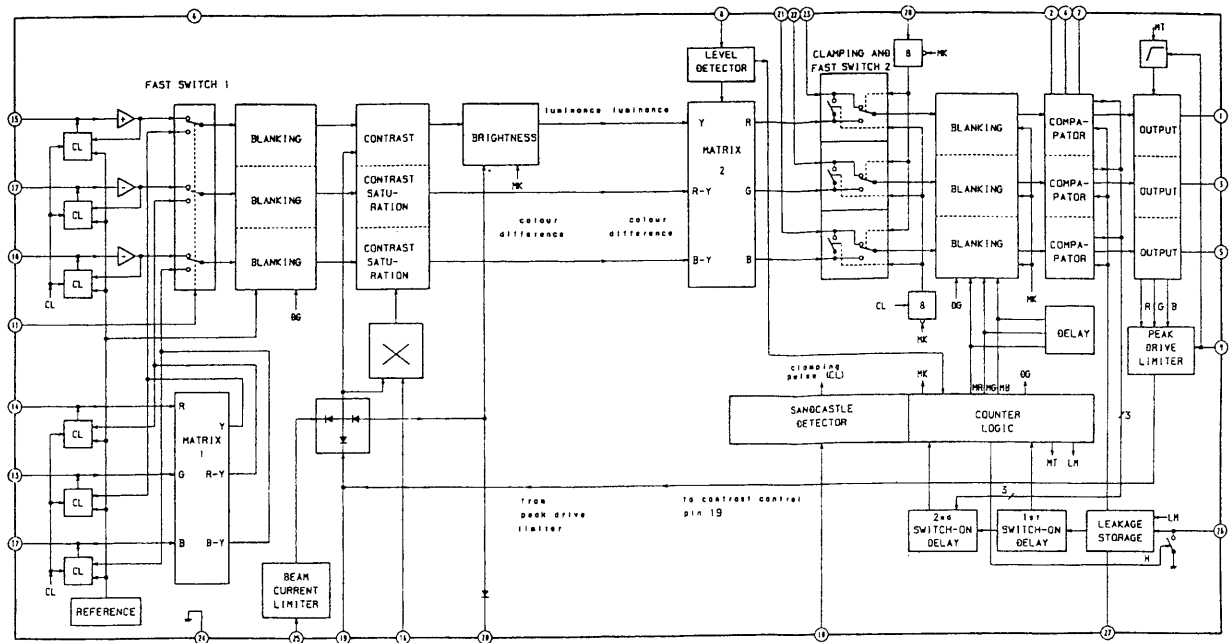
IC		D012	C-1
IC001	B-2	D013	D-2
IC002	C-2	D271	C-5
IC003	C-1	D272	D-5
IC005	G-2	D501	G-7
IC251	F-4	D504	E-5
IC261	C-4	D506	F-5
IC501	G-6	D508	G-5
IC502	E-5	D511	E-6
IC601	A-6	D512	E-5
IC604	A-4	D513	E-5
IC608	A-3	D514	E-5
		D515	E-5
TRANSISTOR		D601	A-8
Q001	C-2	D602	C-6
Q002	C-2	D603	A-5
Q003	D-1	D604	A-4
Q004	D-4	D605	B-6
Q005	C-1	D606	B-6
Q006	C-1	D607	B-6
Q007	F-2	D608	C-7
Q008	F-2	D609	B-6
Q009	C-3	D610	B-4
Q010	A-2	D611	D-6
Q251	E-4	D612	A-4
Q261	D-4	D613	A-5
Q271	C-5	D614	A-5
Q502	F-5	D616	D-5
Q505	E-6	D617	B-6
Q506	D-6	D618	D-5
Q507	G-4	D619	B-6
Q598	G-1	D620	D-5
Q601	B-3	D622	D-5
Q602	C-8	D623	B-4
Q603	B-4	D624	B-4
Q604	A-6	D630	D-5
Q605	D-5	D801	F-8
Q606	C-4	D802	F-10
Q607	D-5	D803	G-10
Q608	C-4	D804	E-7
Q609	C-4	D805	E-7
Q801	G-4	D806	E-9
Q804	E-10	D808	D-9
Q805	F-7		
DIODE		VARIABLE RESISTOR	
D001	A-2	RV501	F-5
D002	D-3	RV502	G-7
D003	A-2	RV601	A-6
D005	G-1		
D006	F-1		
D007	A-2		
D009	E-1		
D010	G-1		
D011	G-1		
		TP	
		TP91	G-9



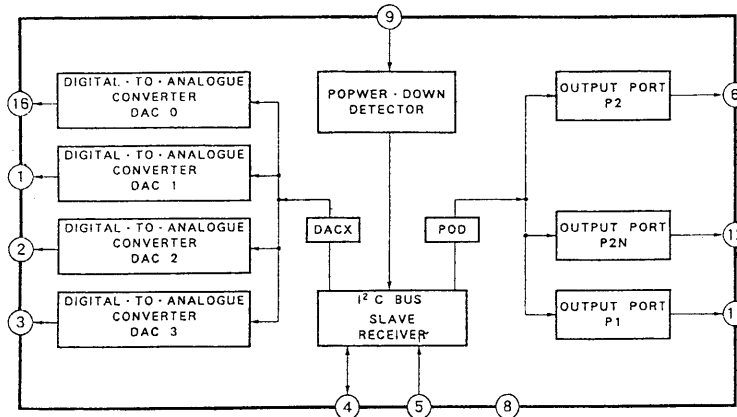
**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

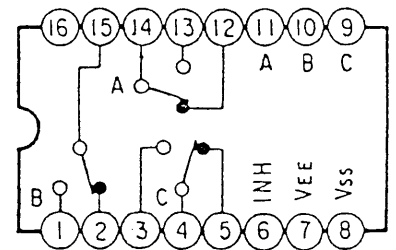
## B BOARD IC301 TDA4580-V7



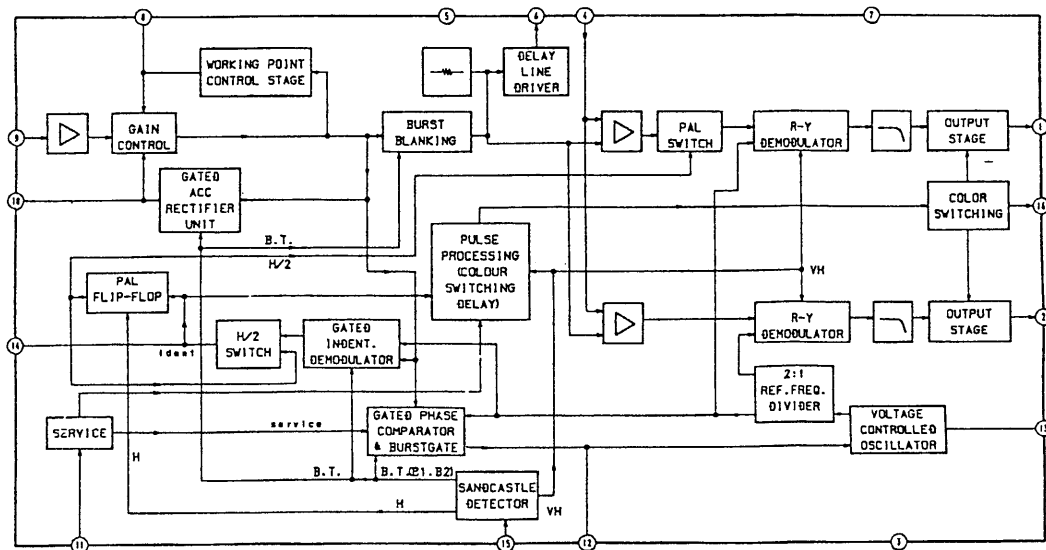
## B BOARD IC302 TDA8442-N3



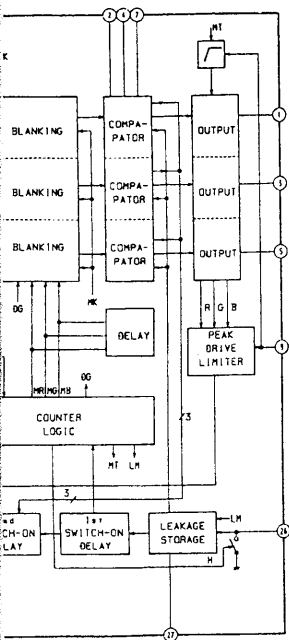
## B BOARD IC303 MC14053BCP



## B BOARD IC331 TDA4510

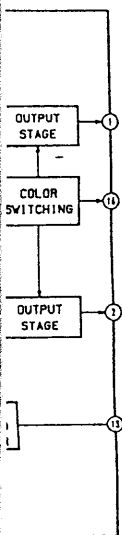
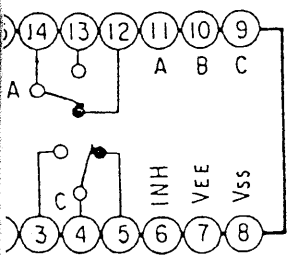


## • WAVEFORMS B BOARD

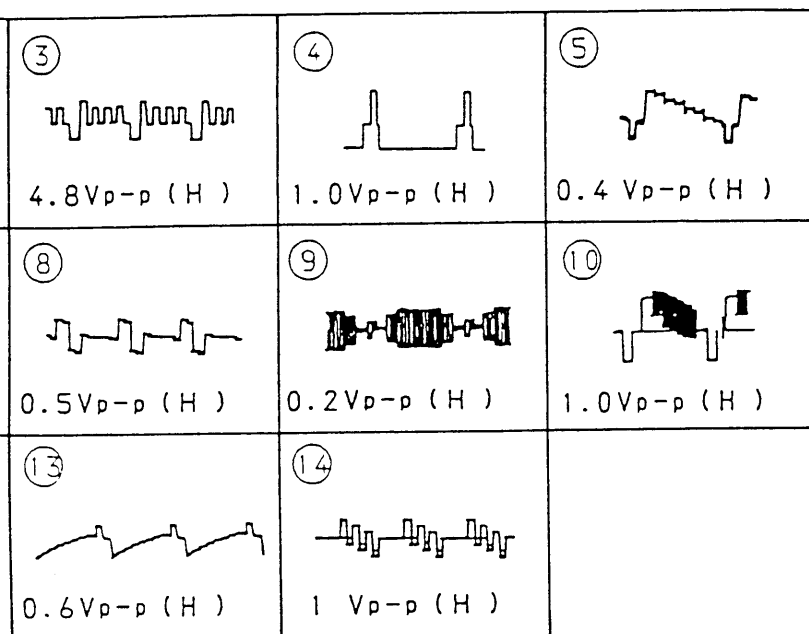


①  4.8Vp-p (H)	②  4.8Vp-p (H)	③  4.8Vp-p (H)	④  1.0Vp-p (H)	⑤ 0.4
⑥  0.9Vp-p (H)	⑦  1.1Vp-p (H)	⑧  0.5Vp-p (H)	⑨  0.2Vp-p (H)	⑩ 1.0
⑪  0.4Vp-p (H)	⑫  1.0Vp-p (H)	⑬  0.6Vp-p (H)	⑭  1 Vp-p (H)	

RD IC303 MC14053BCP







## • B BOARD

IC301	TDA4580-V7	VIDEO PROCESSOR
IC302	TDA8442-N3	D/A CONVERTER I2C BUS
IC303	MC14053BCP	Y/C COMP SW
IC331	TDA4510	COLOR PROCESSOR
IC332	TDA4660V2	1H-DELAY
IC1301	HIC2110	SHARPNESS CONTROL
Q301	2SC2412K	Y AMP
Q303	2SC2412K	STBY SW
Q305	DTA144EK	ANTI PRIORITY SCART
Q311	2SC2412K	ON SCREEN DISPLAY SW
Q312	2SC2412K	CANRL +BLK
Q313	2SC2412K	ON SCREEN DISPLAY SW
Q316	2SC2412K	ON SCREEN DISPLAY SW
Q330	2SA1037K	VIDEO AMP
Q332	2SA1037K	VIDEO BUFF
Q333	2SA1037K	Y AMP
Q334	2SC2412K	PAL SW
Q381	DTC124EK	MUTE SW
Q382	2SC2412K	ABL
Q1301	DTC124EK	Y BUFF
Q1305	2SC2412K	Y OUT
Q1306	2SC2412K	Y OUT
D301	1SS133	ACO AT STBY
D302	1SS133	ACO AT STBY
D303	1SS133	ACO AT STBY
D304	1SS133	DECOUPLING BLK
D305	1SS133	PROTECT
D307	MTZ11CJ	PROTECT
D308	1SS133	PROTECT
D309	1SS133	STOP REJECT
D310	MTZ11CJ	PROTECT
D311	MTZ11CJ	PROTECT
D312	MTZ11CJ	PROTECT
D313	1SS133	PROTECT
D314	1SS133	PROTECT
D315	1SS133	PROTECT
D316	1SS133	PROTECT
D317	1SS133	PROTECT
D318	1SS133	PROTECT
D319	1SS133	PROTECT
D320	1SS133	PROTECT
D350	MTZ5.6BJ	REG

## B BOARD \*MARK

	25 INCH	29 INCH		25 INCH
B-73	-	3P	R306	-
			R315	180
C321	100P	-	R316	180
C344	0.47 $\mu$ F 100V	0.33 $\mu$ F 100V	R317	180
C386	-	4.7 $\mu$ F 50V	R322	1K
C1311	56P	33P	R324	-
			R325	-
D308	-	1SS133	R349	680
			R350	680
IC1301	-	HIC-2110	R351	220
			R357	-
JR387	-	○	R377	560
JR390	○	-	R386	-
			R390	220
L303	5.6 $\mu$ H	-	R1302	-
			R1303	-
Q301	2SC2412K	-	R1304	-
Q1305	-	2SC2412K	R1308	0

- : NO

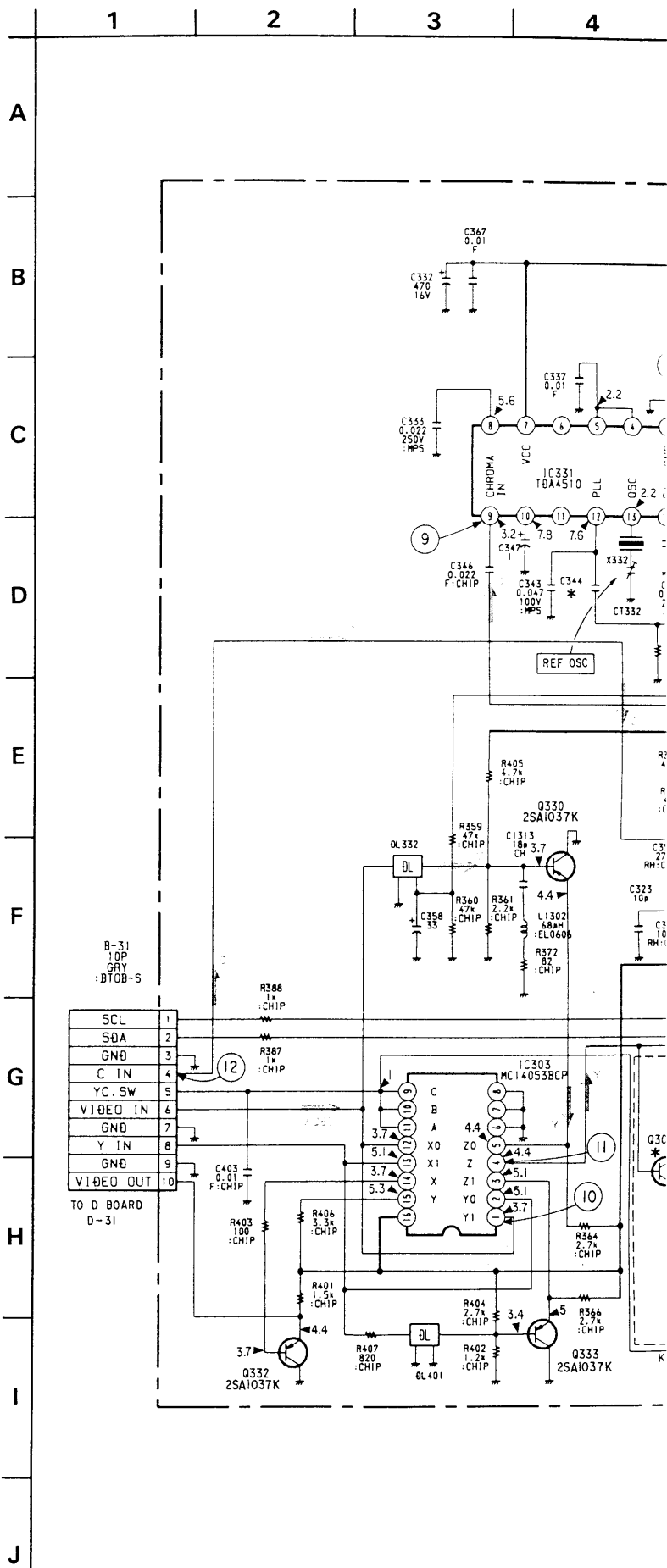
# B BOARD

IC301	TDA4580-V7	VIDEO PROCESSOR
IC302	TDA8442-N3	D/A CONVERTER I <sup>2</sup> C BUS
IC303	MC14053BCP	Y/C COMP SW
IC331	TDA4510	COLOR PROCESSOR
IC332	TDA4660V2	1H-DELAY
IC1301	HIC2110	SHARPNESS CONTROL
Q301	2SC2412K	Y AMP
Q303	2SC2412K	STBY SW
Q305	DTA144EK	ANTI PRIORITY SCART
Q311	2SC2412K	ON SCREEN DISPLAY SW
Q312	2SC2412K	CANRL +BLK
Q313	2SC2412K	ON SCREEN DISPLAY SW
Q316	2SC2412K	ON SCREEN DISPLAY SW
Q330	2SA1037K	VIDEO AMP
Q332	2SA1037K	VIDEO BUFF
Q333	2SA1037K	Y AMP
Q334	2SC2412K	PAL SW
Q381	DTC124EK	MUTE SW
Q382	2SC2412K	ABL
Q1301	DTC124EK	Y BUFF
Q1305	2SC2412K	Y OUT
Q1306	2SC2412K	Y OUT
D301	1SS133	ACO AT STBY
D302	1SS133	ACO AT STBY
D303	1SS133	ACO AT STBY
D304	1SS133	DECOUPLING BLK
D305	1SS133	PROTECT
D307	MTZ11CJ	PROTECT
D308	1SS133	PROTECT
D309	1SS133	STOP REJECT
D310	MTZ11CJ	PROTECT
D311	MTZ11CJ	PROTECT
D312	MTZ11CJ	PROTECT
D313	1SS133	PROTECT
D314	1SS133	PROTECT
D315	1SS133	PROTECT
D316	1SS133	PROTECT
D317	1SS133	PROTECT
D318	1SS133	PROTECT
D319	1SS133	PROTECT
D320	1SS133	PROTECT
D350	MTZ5.6BJ	REG

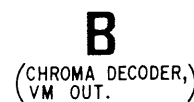
## \* MARK

25 INCH	29 INCH		25 INCH	29 INCH
-	3P	R306	-	0
-	-	R315	180	120
100P	-	R316	180	120
47 $\mu$ F 100V	0.33 $\mu$ F 100V	R317	180	120
-	4.7 $\mu$ F 50V	R322	1K	1.8K
56P	33P	R324	-	10K
-	-	R325	-	10K
-	1SS133	R349	680	-
-	-	R350	680	-
-	HIC-2110	R351	220	-
-	-	R357	-	220
-	○	R377	560	2.2K
○	-	R386	-	3.3K
-	-	R390	220	100
5.6 $\mu$ H	-	R1302	-	47K
-	-	R1303	-	47K
2SC2412K	-	R1304	-	100K
-	2SC2412K	R1308	0	4.7K

- : NOT MOUNTED





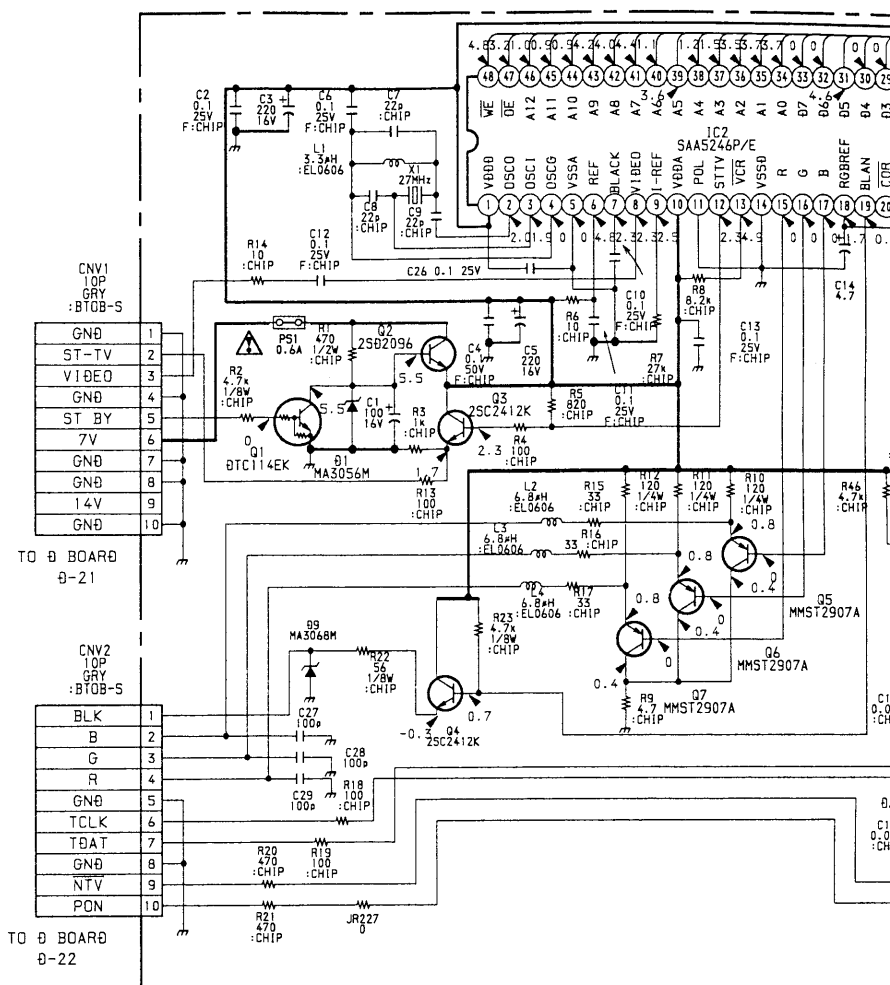
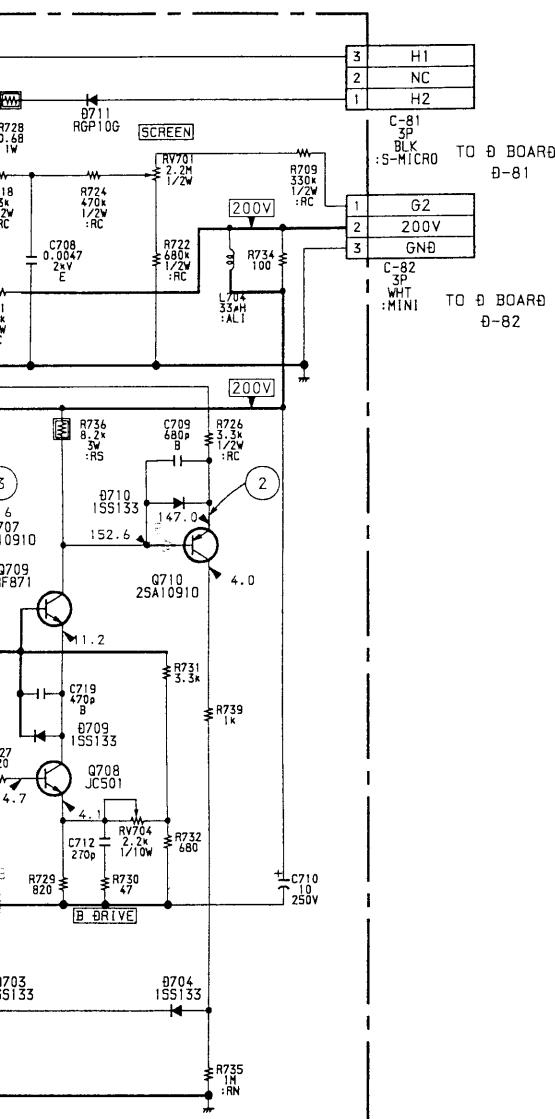


— 52 —



- : NOT MOUNTED

5	6	7	8	9	10	11	12
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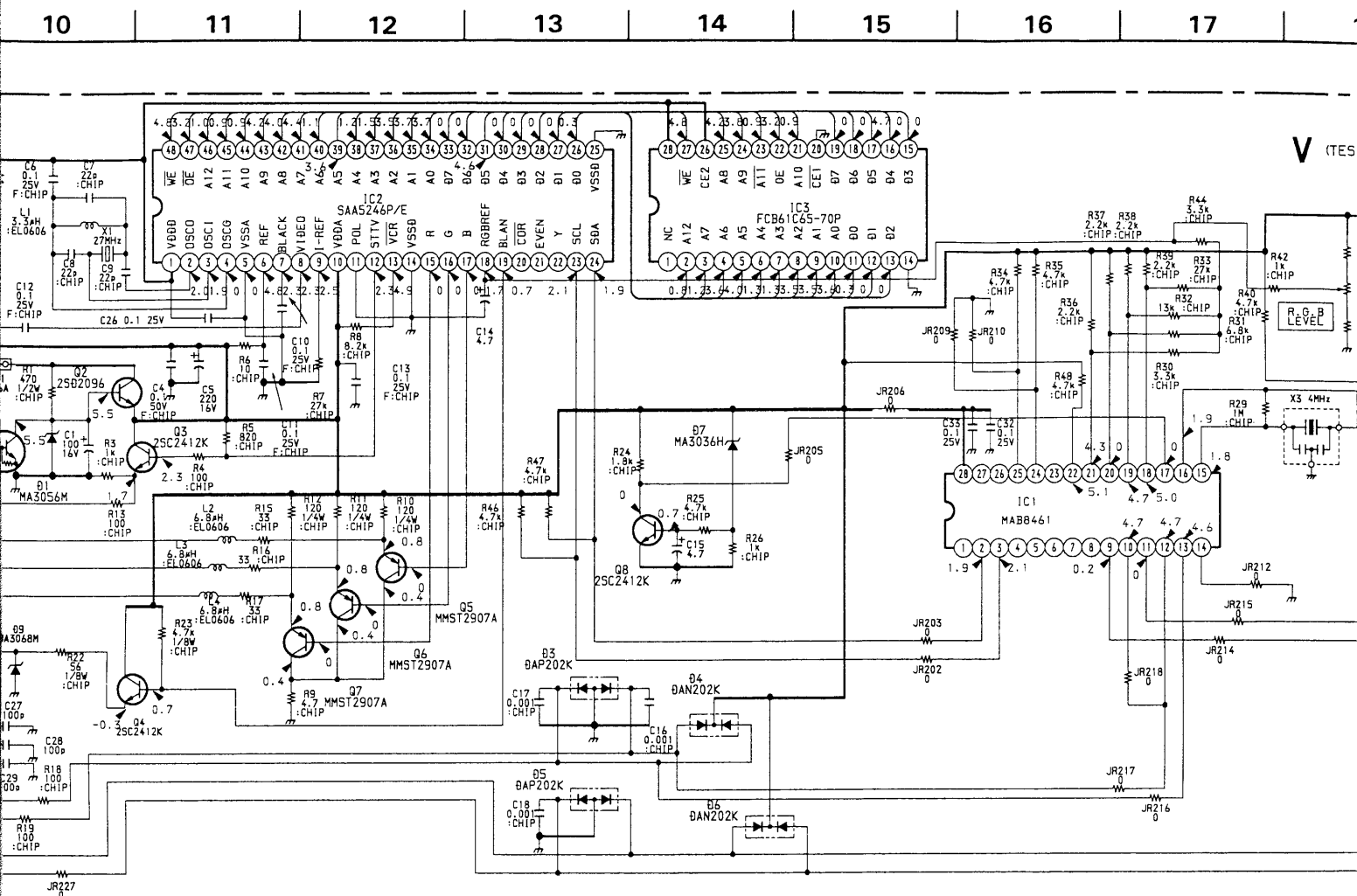
## BOARD

JC501	R DRIVE	D702	1SS133	PROTECT
BF871	R OUT	D703	1SS133	PROTECT
2SA1091-O	ACO MEASURING	D704	1SS133	PROTECT
JC501	G DRIVE	D705	1SS133	PROTECT
BF871	G OUT	D706	1SS133	PROTECT
2SA1091-O	ACO MEASURING	D707	1SS133	PROTECT
JC501	B DRIVE	D708	1SS133	PROTECT
BF871	B OUT	D709	1SS133	PROTECT
2SA1091-O	ACO MEASURING	D710	1SS133	PROTECT
		D711	RGP10G	HEATING VOLTAGE RECT
MTZJ9.1C	PROTECT	D713	1SS133	PROTECT

RD \* MARK

	25 INCH	29 INCH
	820K	470K

- : NOT MOUNTED



# • V BOARD

IC1	MAB8461P-W208	MICRO-CONT
IC2	SAA5246P/E	IVT
IC3	FCB61C65-70P	STATIC-RAM
Q1	DTC114EK	STAND BY
Q2	2SD2096	5V REG
Q3	2SC2412K	SYNC BUFFER
Q4	2SC2412K	BLK OUT
Q5	MMST2907A	B OUT
Q6	MMST2907A	G OUT
Q7	MMST2907A	R OUT
Q8	2SC2412K	PON SW
D1	MA3056M	5V REG
D3	DAP202K	PROTECT
D4	DAN202K	PROTECT
D5	DAP202K	PROTECT
D6	DAN202K	PROTECT
D7	MA3036H	PROTECT
D9	MA3068M	PROTECT

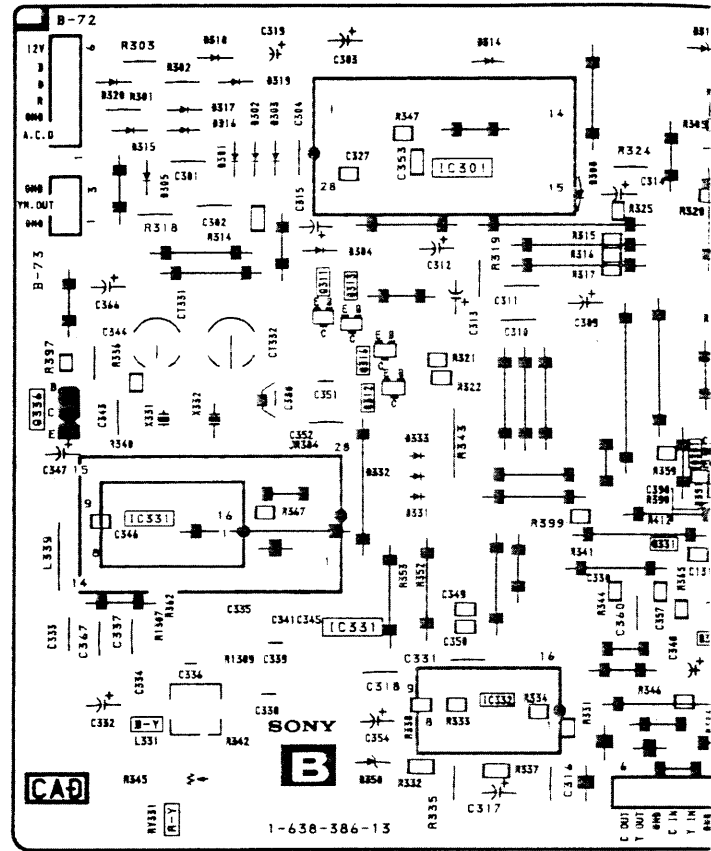
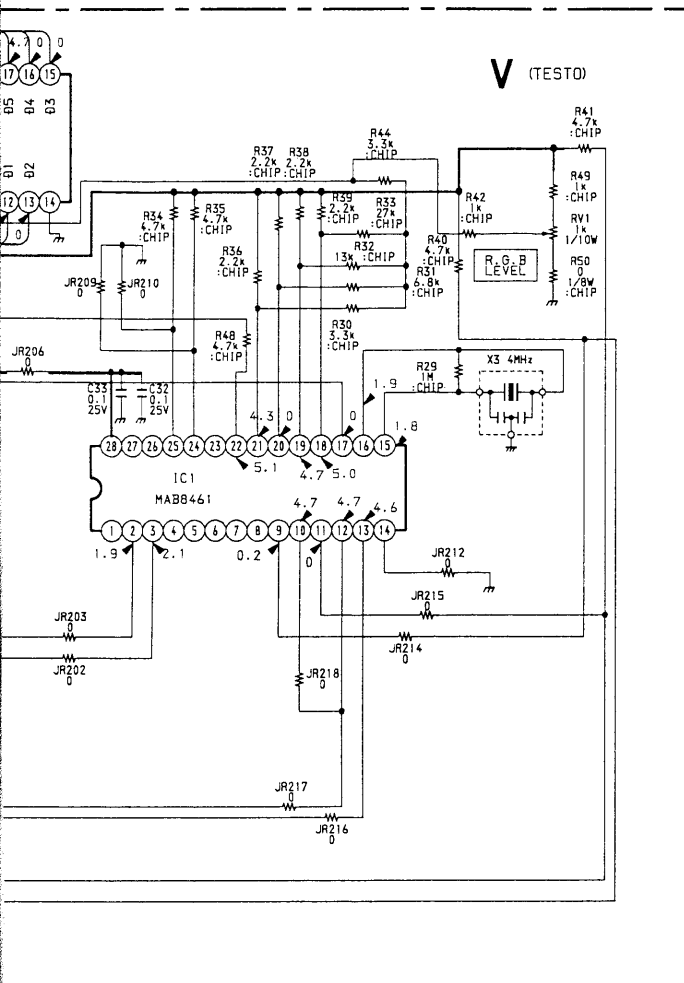
**B**[CHROMA DECODER]  
[VM OUT]**C**

[R. G. B OUT]

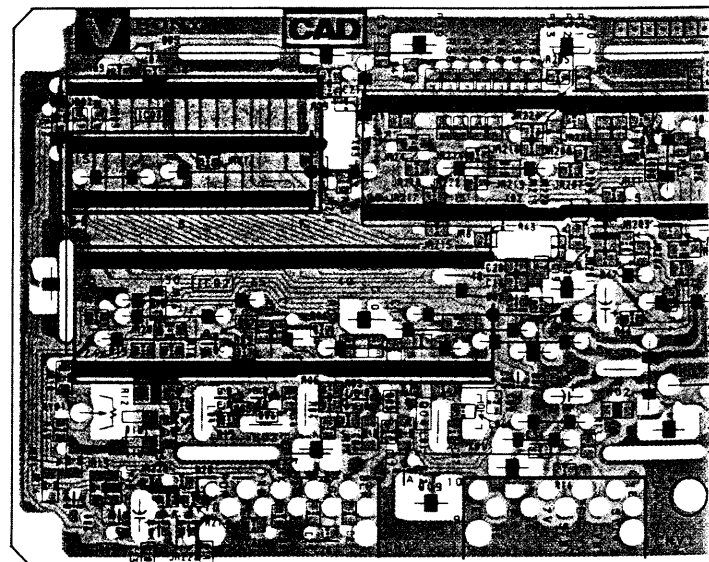
**V**

-B Board-

15 16 17 18 19



-V Board-



- Pattern from the side which is
- Pattern of the rear side.

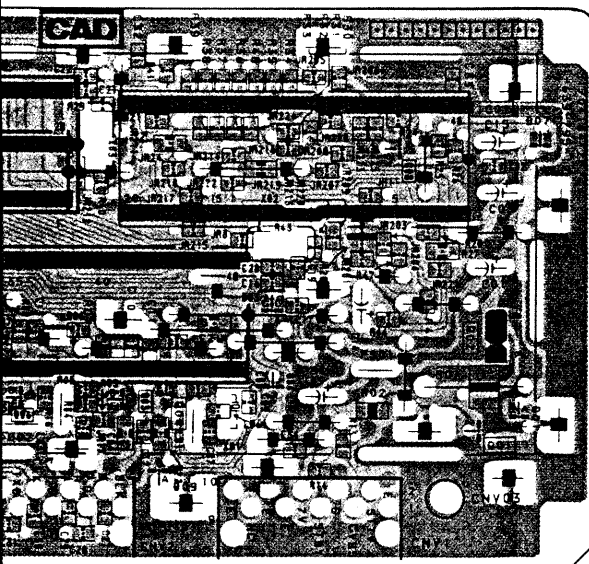
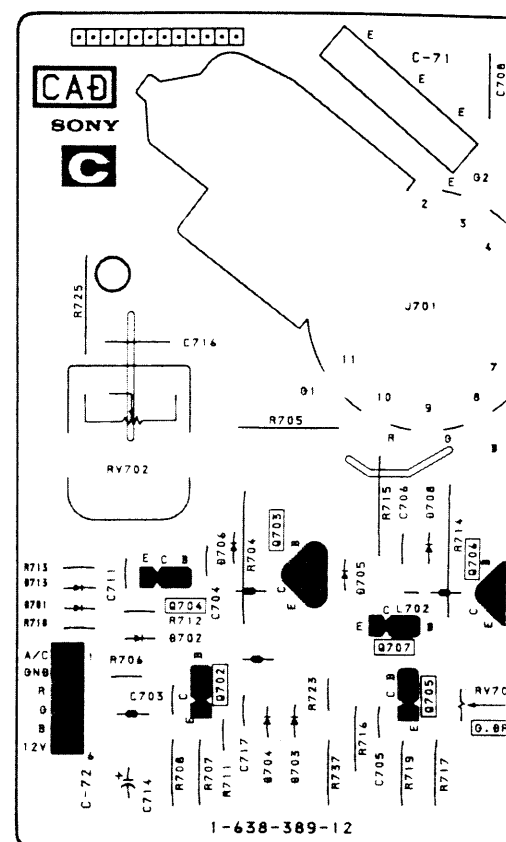
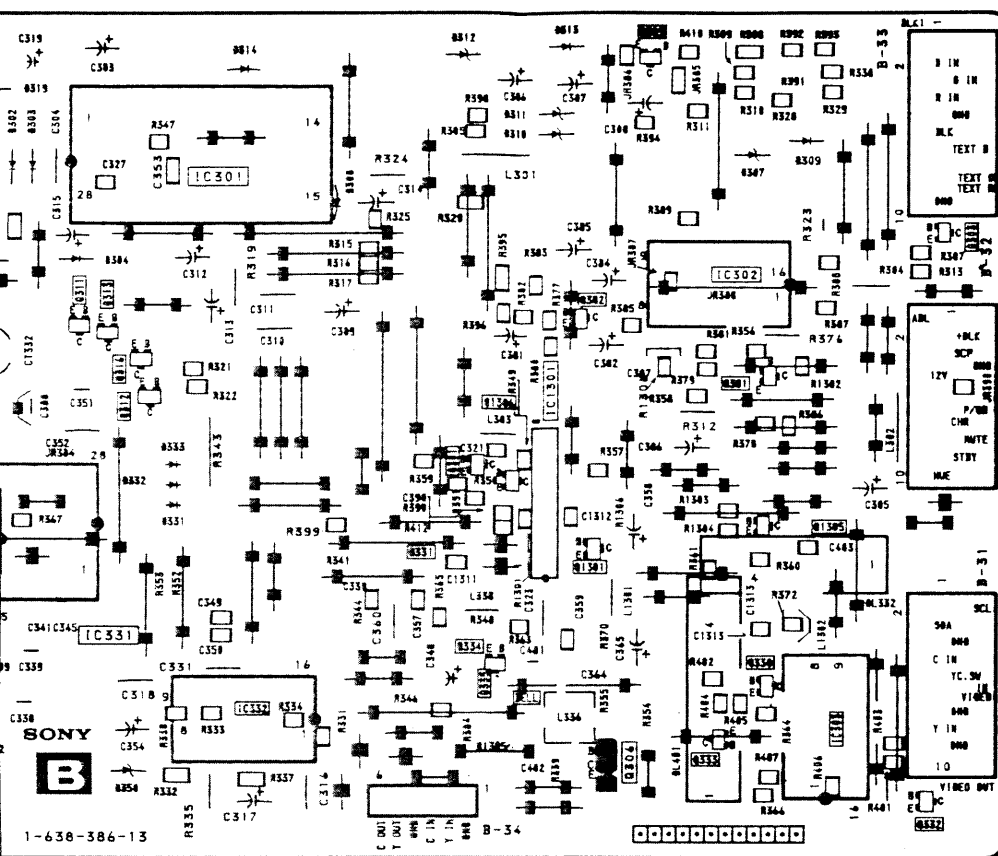
## BOARD


IC1	MA88461P-W208	MICRO-CONT
IC2	SAA5246P/E	IVT
IC3	FCB61C65-70P	STATIC-RAM
Q1	DTC114EK	STAND BY
Q2	2SD2096	5V REG
Q3	2SC2412K	SYNC BUFFER
Q4	2SC2412K	BLK OUT
Q5	MMST2907A	B OUT
Q6	MMST2907A	G OUT
Q7	MMST2907A	R OUT
Q8	2SC2412K	PON SW
D1	MA3056M	5V REG
D3	DAP202K	PROTECT
D4	DAN202K	PROTECT
D5	DAP202K	PROTECT
D6	DAN202K	PROTECT
D7	MA3036H	PROTECT
D9	MA3068M	PROTECT



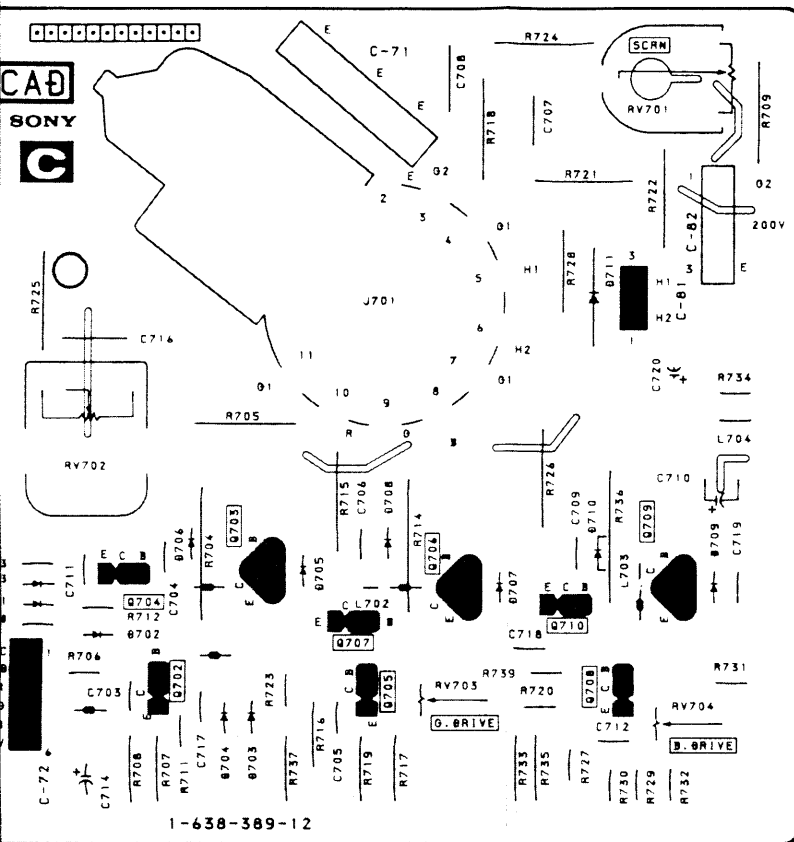
DECODER] **C** [R. G. B OUT] **V** [TEXT]

- C Board -



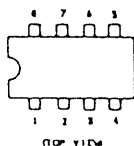
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

C Board—

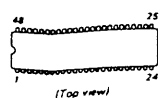


# 5-4. SEMICONDUCTORS

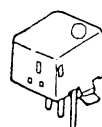
BA4558  
NE5532P  
RC4558P  
SDA2546  
TBA129  
TDA1543  
TEA2014A  
TEA2031A



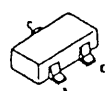
SAA5246P/E  
SAA5246P/E/M4A



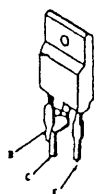
SBX1610-11



DTA144EK  
DTC114EK  
DTC124EK  
DTC144EK  
2SA1162-G  
2SB1295-UL6  
2SB161295-UL6  
2SC1623-L5L6  
2SC2712-YG



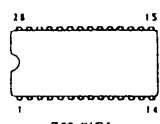
2SD1548  
2SD1941



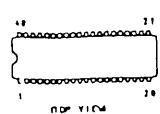
2SD2096



CXA1114P  
CXK5864BP-10L  
FCB61C65L-70P  
MAB8461P-W208  
SAA7280  
TC5565APL-15L  
TDA4580/V7  
TDA6200  
TEA2028B



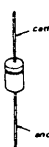
SDA20560-A012



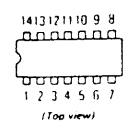
DTC144ES



BB405E  
BB809



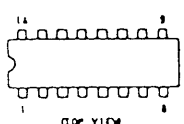
SN74LS02N



2SA1091-O  
2SD789-34



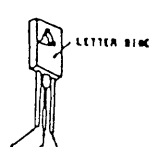
HD140538FP  
MC14051BCP  
PCF8574  
TDA4510/V8  
TDA4660V2  
TDA8442-N3  
TEA2260  
μ PD4053BC



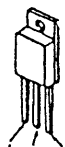
TDA2050



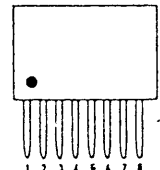
2SA1220A-P  
2SC2688-LK



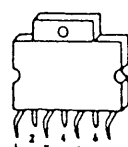
CTU-12



HIC2110



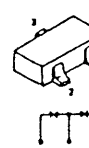
TDA8170



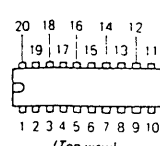
2SB734-34  
2SD773-34  
2SD774-34



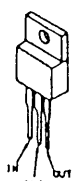
DAP202



TDA8732



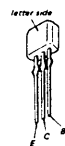
LM7812CT  
TEA7605



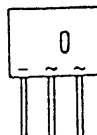
BF871



2SC2785-HFE

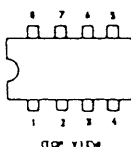


D4SB60L

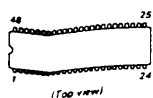


## 5-4. SEMICONDUCTORS

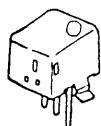
BA4558  
NE5532P  
RC4558P  
SDA2546  
TBA129  
TDA1543  
TEA2014A  
TEA2031A



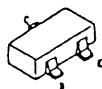
SAA5246P/E  
SAA5246P/E/M4A



SBX1610-11



DTA144EK  
DTC114EK  
DTC124EK  
DTC144EK  
2SA1162-G  
2SB1295-UL6  
2SB161295-UL6  
2SC1623-L5L6  
2SC2712-YG



DTC144ES



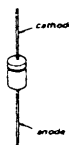
2SD1548-LB  
2SD1941-06



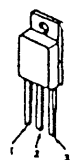
2SD2096-EF



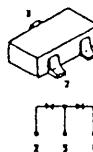
BB405B  
BB809



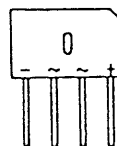
CTU-12S



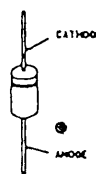
DAP202K



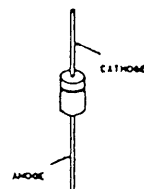
D4SB60L-F



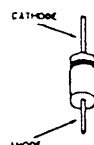
EGP20G  
RGP02-17  
RU-3AM



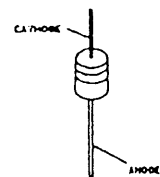
ERC06-15S



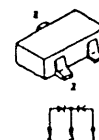
ERD29-08J



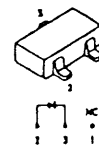
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MTZJ-15A  
MTZJ-3.9B  
MTZJ-33A  
MTZJ-36D  
MTZN-10C  
RD11ESB3  
RD5.6ESB2  
RD6.2ESB2  
RD6.8ESB2  
RD7.5ESB2  
RD9.1ESB3  
UZ-4.7BSC  
1SS119



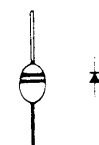
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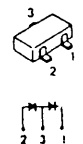
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RD5.6M-B2  
RD6.8M-B2



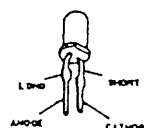
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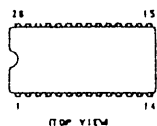
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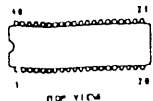
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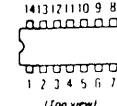
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FCB61C65L-70P  
MAB8461P-W208  
SAA7280  
TC5565APL-15L  
TDA4580/V7  
TDA6200  
TEA2028B



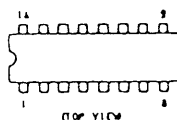
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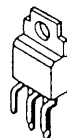
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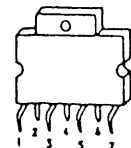
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MC14051BCP  
PCF8574  
TDA4510/V8  
TDA4660V2  
TDA8442-N3  
TEA2260  
μ PD4053BC



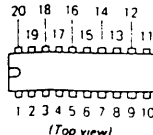
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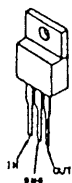
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TDA8732



LM7812CT  
TEA7605



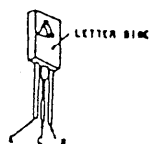
BF871



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2SD789-34



2SA1220A-P  
2SC2688-LK



2SB734-34  
2SD773-34  
2SD774-34



2SC2785-HFE



SECTION 6  
EXPLODED VIEWS

## NOTE:

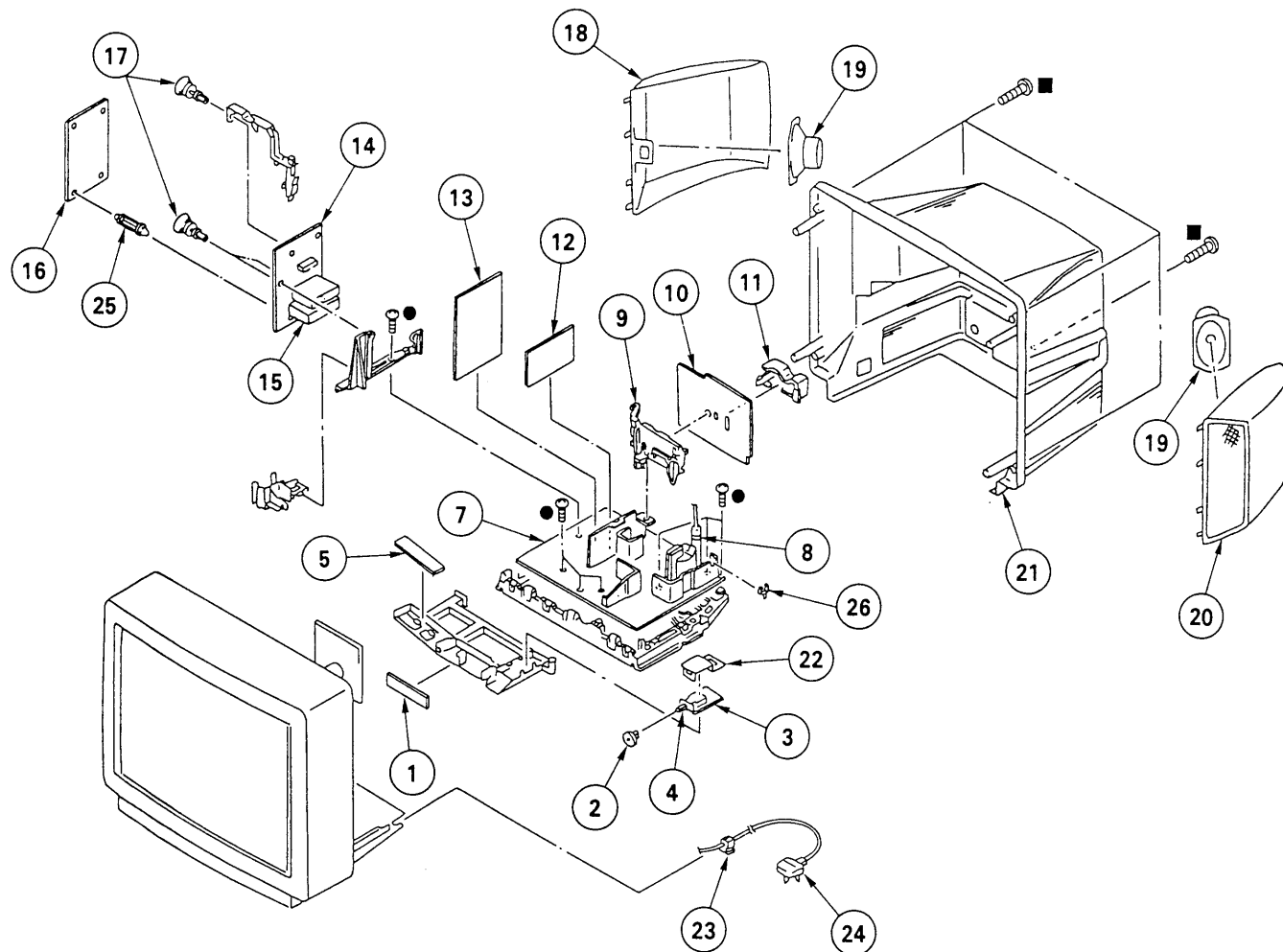
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

## 6-1. CHASSIS

●: BVTP3×12 7-685-648-79

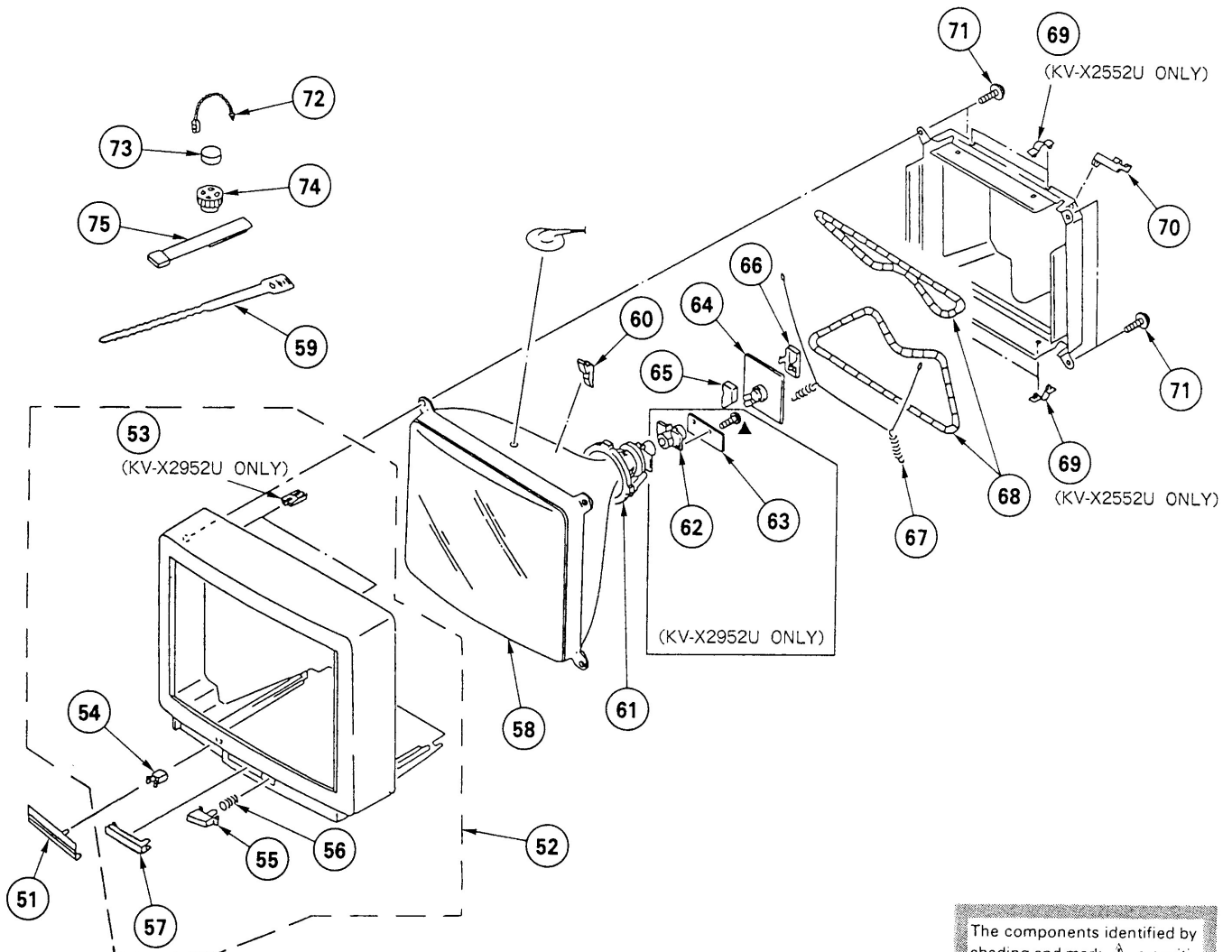
■: BVTP4×16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-638-392-11	H2 BOARD		14	*A-1632-026-A	A BOARD, COMPLETE	
2	4-386-611-01	COVER, SWITCH		15	Δ 1-465-515-11	TUNER (SUF944PLL)	
3	*1-638-390-11	F BOARD		16	*A-1632-028-A	A1 BOARD, COMPLETE	
4	Δ 1-571-433-12	SWITCH, PUSH (AC POWER)		17	4-386-618-01	RIVET, T TYPE	
5	*1-638-744-12	H1 BOARD		18	X-4200-088-1	BAFFLE (L) ASSY, BOARD	
7	*A-1642-033-A	D BOARD, COMPLETE (KV-X2552U ONLY)		19	1-544-727-11	SPEAKER (7.5X13CM)	
8	*A-1642-041-A	D BOARD, COMPLETE (KV-X2952U ONLY)		20	X-4200-087-1	BAFFLE (R) ASSY, BOARD	
8	Δ 1-439-416-51	TRANSFORMER ASSY, FLYBACK (UX-1650)		21	4-034-786-01	COVER, REAR (KV-X2552U ONLY)	
9	*4-386-624-11	BRACKET, J			4-200-892-01	COVER, REAR (KV-X2952U ONLY)	
10	*A-1651-018-A	J1 BOARD, COMPLETE (KV-X2552U ONLY)		22	4-200-274-01	COVER, POWER SWITCH (KV-X2552U ONLY)	
	*A-1651-020-A	J1 BOARD, COMPLETE (KV-X2952U ONLY)			4-200-757-01	COVER, POWER SWITCH (KV-X2952U ONLY)	
11	4-200-014-01	BRACKET, TERMINAL		23	Δ 4-389-201-03	HOLDER, AC CORD	
12	*A-1645-015-A	V BOARD, COMPLETE		24	Δ 1-590-762-11	CORD, POWER (WITH PLUG)	
13	*A-1621-035-A	B BOARD, COMPLETE (KV-X2552U ONLY)		25	*4-385-948-01	HOLDER, PCB	
	*A-1621-034-A	B BOARD, COMPLETE (KV-X2952U ONLY)		26	*3-646-071-00	HOLDER, WIRE	

## 6-2. PICTURE TUBE

▲ : BVTP3×8 7-685-646-79



The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-200-889-11	DOOR		63	*1-634-193-11	VM BOARD (KV-X2952U ONLY)	
52	X-4030-156-1	CABINET ASSY (WITH BEZEL ASSY) 54~57		64	*A-1638-011-A	C BOARD, COMPLETE (KV-X2552U ONLY)	
	X-4200-089-1	CABINET ASSY (WITH BEZEL ASSY) 53~57			*A-1638-013-A	C BOARD, COMPLETE (KV-X2952U ONLY)	
53	4-382-745-01	HOLDER, RC (KV-X2952U ONLY)		65	*4-379-167-01	COVER (MAIN), CV	
54	4-392-036-01	CATCHER, PUSH		66	*4-379-160-01	COVER (REAR LID), CV	
55	4-200-886-01	BUTTON, POWER		67	4-303-774-99	SPRING (KV-X2552U ONLY)	
56	4-329-112-21	SPRING (KV-X2552U ONLY)			4-369-318-00	SPRING, TENSION (KV-X2952U ONLY)	
	4-329-112-51	SPRING (KV-X2952U ONLY)		68	▲ 1-460-091-11	COIL, DEGAUSS (KV-X2552U ONLY)	
57	4-200-148-01	WINDOW, ORNAMENTAL			▲ 1-426-535-11	COIL, DEGAUSSING (KV-X2952U ONLY)	
58	▲ 8-733-231-05	PICTURE TUBE (A59JWC61X) (KV-X2552U ONLY)		69	*4-385-916-01	HOLDER (D) (KV-X2552U ONLY)	
	▲ 8-733-831-05	PICTURE TUBE (A68JYL61X) (KV-X2952U ONLY)		70	*4-387-284-01	HOLDER, LEAD	
59	3-701-007-00	BAND, BINDING		71	4-373-263-01	SCREW (M), PT	
60	3-704-495-01	SPACER, DY		72	4-308-870-00	CLIP, LEAD WIRE	
61	▲ 1-451-311-21	DEFLECTION YOKE (Y25FXA) (KV-X2552U ONLY)		73	1-452-032-00	MAGNET, DISK; 10MM φ	
	▲ 1-451-313-21	DEFLECTION YOKE (Y29FXA) (KV-X2952U ONLY)		74	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
62	▲ 1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308) (KV-X2952U ONLY)		75	X-4387-214-1	PERMALLOY ASSY, CORRECTION	

SECTION 7  
ELECTRICAL PARTS LIST

B

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

## CAPACITORS

• MF :  $\mu$ F, PF :  $\mu$  $\mu$ F

## COILS

• MMH : mH, UH :  $\mu$ H

## RESISTORS

• All resistors are in ohms  
• F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	*A-1621-035-A	B BOARD, COMPLETE (KV-X2552U ONLY)					
	*A-1621-034-A	B BOARD, COMPLETE (KV-X2952U ONLY)					
B31	*1-565-393-11	CONNECTOR, BOARD TO BOARD		C359	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
B32	*1-565-393-11	CONNECTOR, BOARD TO BOARD		C360	1-101-004-00	CERAMIC 0.01MF	50V
B33	*1-565-393-11	CONNECTOR, BOARD TO BOARD		C365	1-124-910-11	ELECT 47MF	20% 50V
B72	*1-568-881-51	PIN, CONNECTOR 6P		C366	1-126-103-11	ELECT 470MF	20% 16V
B73	*1-568-878-51	PIN, CONNECTOR 3P (KV-X2952U ONLY)		C367	1-101-004-00	CERAMIC 0.01MF	50V
<CAPACITOR>				C381	1-124-902-00	ELECT 0.47MF	20% 50V
C301	1-137-031-11	FILM 0.22MF	10% 100V	C382	1-124-927-11	ELECT 4.7MF	20% 50V
C302	1-137-031-11	FILM 0.22MF	10% 100V	C384	1-124-910-11	ELECT 47MF	20% 50V
C303	1-124-122-11	ELECT 100MF	20% 50V	C385	1-124-927-11	ELECT 4.7MF	20% 50V
C304	1-137-031-11	FILM 0.22MF	10% 100V	C386	1-124-927-11	ELECT 4.7MF	20% 50V
C305	1-124-119-00	ELECT 330MF	20% 16V				
C306	1-124-902-00	ELECT 0.47MF	20% 50V	C387	1-137-027-11	FILM 0.82MF	(KV-X2952U ONLY) 10% 63V
C307	1-124-902-00	ELECT 0.47MF	20% 50V	C403	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C308	1-124-902-00	ELECT 0.47MF	20% 50V	C1311	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C309	1-124-902-00	ELECT 0.47MF	20% 50V				
C310	1-137-098-11	FILM 0.1MF	10% 100V		1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C311	1-137-098-11	FILM 0.1MF	10% 100V				
C312	1-124-902-00	ELECT 0.47MF	20% 50V	C1312	1-163-235-11	CERAMIC CHIP 22PF	(KV-X2952U ONLY) 5% 50V
C313	1-124-902-00	ELECT 0.47MF	20% 50V	C1313	1-102-953-00	CERAMIC 18PF	5% 50V
C314	1-124-902-00	ELECT 0.47MF	20% 50V	<TRIMMER>			
C315	1-124-903-11	ELECT 1MF	20% 50V	CT332	1-141-418-11	CAP, ADJ	
C316	1-137-098-11	FILM 0.1MF	10% 100V	<DIODE>			
C317	1-124-910-11	ELECT 47MF	20% 50V	D301	8-719-911-19	DIODE 1SS119	
C318	1-137-098-11	FILM 0.1MF	10% 100V	D302	8-719-911-19	DIODE 1SS119	
C321	1-163-117-00	CERAMIC CHIP 100PF	5% 50V (KV-X2552U ONLY)	D303	8-719-911-19	DIODE 1SS119	
				D304	8-719-911-19	DIODE 1SS119	
				D305	8-719-911-19	DIODE 1SS119	
C323	1-102-947-00	CERAMIC 10PF	0.5PF 50V	D307	8-719-110-23	DIODE RD11ES-B3	
C327	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D308	8-719-911-19	DIODE 1SS119 (KV-X2952U ONLY)	
C331	1-137-098-11	FILM 0.1MF	10% 100V	D309	8-719-911-19	DIODE 1SS119	
C332	1-126-103-11	ELECT 470MF	20% 16V	D310	8-719-110-23	DIODE RD11ES-B3	
C333	1-137-102-11	FILM 0.022MF	10% 250V	D311	8-719-110-23	DIODE RD11ES-B3	
C337	1-101-004-00	CERAMIC 0.01MF	50V	D312	8-719-110-23	DIODE RD11ES-B3	
C343	1-137-094-11	FILM 0.047MF	10% 100V	D313	8-719-911-19	DIODE 1SS119	
C344	1-137-035-11	FILM 0.47MF	10% 100V (KV-X2552U ONLY)	D314	8-719-911-19	DIODE 1SS119	
	1-137-033-11	FILM 0.33MF	10% 100V (KV-X2952U ONLY)	D315	8-719-911-19	DIODE 1SS119	
				D316	8-719-911-19	DIODE 1SS119	
C346	1-163-033-00	CERAMIC CHIP 0.022MF	50V	D317	8-719-911-19	DIODE 1SS119	
C347	1-124-903-11	ELECT 1MF	20% 50V	D318	8-719-911-19	DIODE 1SS119	
C349	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D319	8-719-911-19	DIODE 1SS119	
C350	1-163-031-11	CERAMIC CHIP 0.01MF	50V	D320	8-719-911-19	DIODE 1SS119	
				D350	8-719-109-89	DIODE RD5.6ES-B2	
C352	1-137-102-11	FILM 0.022MF	10% 250V	<DELAY LINE>			
C353	1-163-063-00	CERAMIC CHIP 0.022MF	10% 50V	DL332	1-236-062-11	MODULE, Y DELAY LINE	
C354	1-124-910-11	ELECT 47MF	20% 50V	DL401	1-415-613-11	DELAY LINE, Y	
C357	1-163-377-11	CERAMIC CHIP 100PF	5% 50V				
C358	1-124-917-11	ELECT 33MF	20% 50V				

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<IC>				R316	1-216-031-00	METAL GLAZE 180 5%	1/10W
IC301	8-759-517-43	IC TDA4580-V7					(KV-X2552U ONLY)
IC302	8-759-980-60	IC TDA8442N3			1-216-027-00	METAL GLAZE 120 5%	1/10W
IC303	8-759-140-53	IC UPD4053BC					(KV-X2952U ONLY)
IC331	8-759-513-46	IC TDA4510/V8		R317	1-216-031-00	METAL GLAZE 180 5%	1/10W
IC332	8-759-505-39	IC TDA4660V2					(KV-X2552U ONLY)
IC1301	1-235-534-11	CONTROL MODULE, PICTURE (KV-X2952U ONLY)			1-216-027-00	METAL GLAZE 120 5%	1/10W
<COIL>							(KV-X2952U ONLY)
L301	1-410-868-11	INDUCTOR 4.7UH		R318	1-249-429-11	CARBON 10K 5%	1/4W
L302	1-410-868-11	INDUCTOR 4.7UH		R319	1-249-409-11	CARBON 220 5%	1/4W
L303	1-408-406-00	INDUCTOR 5.6UH (KV-X2552U ONLY)		R320	1-216-198-00	METAL GLAZE 1K 5%	1/8W
L338	1-408-409-00	INDUCTOR 10UH		R321	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
L1301	1-408-425-00	INDUCTOR 220UH		R322	1-216-049-00	METAL GLAZE 1K 5%	1/10W
							(KV-X2552U ONLY)
L1302	1-408-419-00	INDUCTOR 68UH			1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
<TRANSISTOR>							(KV-X2952U ONLY)
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-X2552U ONLY)		R324	1-249-429-11	CARBON 10K 5%	1/4W
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6					(KV-X2952U ONLY)
Q305	8-729-901-06	TRANSISTOR DTA144EK		R325	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q311	8-729-120-28	TRANSISTOR 2SC1623-L5L6					(KV-X2952U ONLY)
Q312	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R328	1-216-311-00	METAL GLAZE 6.8 5%	1/10W
				R329	1-216-311-00	METAL GLAZE 6.8 5%	1/10W
Q313	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R330	1-216-311-00	METAL GLAZE 6.8 5%	1/10W
Q316	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R331	1-216-001-00	METAL GLAZE 10 5%	1/10W
Q330	8-729-216-22	TRANSISTOR 2SA1162-G					(KV-X2552U ONLY)
Q332	8-729-216-22	TRANSISTOR 2SA1162-G		R332	1-216-184-00	METAL GLAZE 270 5%	1/8W
Q333	8-729-216-22	TRANSISTOR 2SA1162-G		R333	1-216-121-00	METAL GLAZE 1M 5%	1/10W
				R334	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q334	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R335	1-247-852-11	CARBON 7.5K 5%	1/4W
Q381	8-729-901-00	TRANSISTOR DTC124EK		R336	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q382	8-729-120-28	TRANSISTOR 2SC1623-L5L6					(KV-X2552U ONLY)
Q1301	8-729-901-00	TRANSISTOR DTC124EK		R337	1-216-184-00	METAL GLAZE 270 5%	1/8W
Q1305	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-X2952U ONLY)		R338	1-216-001-00	METAL GLAZE 10 5%	1/10W
				R343	1-249-437-11	CARBON 47K 5%	1/4W
Q1306	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R344	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R346	1-216-202-00	METAL GLAZE 1.5K 5%	1/8W
<RESISTOR>							(KV-X2952U ONLY)
JR385	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W	R347	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR387	1-216-295-00	METAL GLAZE 0 5%	1/10W	R349	1-216-045-00	METAL GLAZE 680 5%	1/10W
			(KV-X2952U ONLY)				(KV-X2552U ONLY)
JR390	1-216-295-00	METAL GLAZE 0 5%	1/10W	R350	1-216-045-00	METAL GLAZE 680 5%	1/10W
			(KV-X2552U ONLY)				(KV-X2552U ONLY)
R301	1-249-409-11	CARBON 220 5%	1/4W	R351	1-216-033-00	METAL GLAZE 220 5%	1/10W
R302	1-249-409-11	CARBON 220 5%	1/4W				(KV-X2552U ONLY)
R303	1-249-409-11	CARBON 220 5%	1/4W	R356	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R304	1-249-409-11	CARBON 220 5%	1/4W	R357	1-216-033-00	METAL GLAZE 220 5%	1/10W
R305	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W				(KV-X2952U ONLY)
				R358	1-216-033-00	METAL GLAZE 220 5%	1/10W
R306	1-216-295-00	METAL GLAZE 0 5%	1/10W				(KV-X2552U ONLY)
			(KV-X2952U ONLY)	R359	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R307	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R360	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R308	1-216-296-00	METAL GLAZE 0 5%	1/8W	R361	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R309	1-216-025-00	METAL GLAZE 100 5%	1/10W	R363	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
							(KV-X2552U ONLY)
R310	1-216-025-00	METAL GLAZE 100 5%	1/10W	R364	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R311	1-216-025-00	METAL GLAZE 100 5%	1/10W	R365	1-216-047-00	METAL GLAZE 820 5%	1/10W
R312	1-249-409-11	CARBON 220 5%	1/4W	R366	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R313	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R367	1-216-033-00	METAL GLAZE 220 5%	1/10W
R314	1-216-182-00	METAL GLAZE 220 5%	1/8W	R372	1-216-023-00	METAL GLAZE 82 5%	1/10W
							(KV-X2552U ONLY)
R315	1-216-031-00	METAL GLAZE 180 5%	1/10W	R376	1-249-429-11	CARBON 10K 5%	1/4W
			(KV-X2552U ONLY)	R377	1-216-037-00	METAL GLAZE 330 5%	1/10W
	1-216-027-00	METAL GLAZE 120 5%	1/10W				(KV-X2552U ONLY)
			(KV-X2952U ONLY)		1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
							(KV-X2952U ONLY)
				R378	1-216-097-00	METAL GLAZE 100K 5%	1/10W
				R379	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R380	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
				R381	1-216-093-00	METAL GLAZE 68K 5%	1/10W
				R382	1-216-105-00	METAL GLAZE 220K 5%	1/10W
							(KV-X2552U ONLY)
				R383	1-216-115-00	METAL GLAZE 560K 5%	1/10W



B	F	A
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— 64 —

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

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A1

REF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
JR252	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR253	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR255	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR256	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR257	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR258	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R104	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R105	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R107	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R118	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R128	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R129	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R130	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R152	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R153	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R154	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R155	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R156	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R157	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R158	1-249-409-11	CARBON 220 5% 1/4W	
R159	1-249-409-11	CARBON 220 5% 1/4W	
R161	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R162	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R163	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R164	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R165	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R167	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R168	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R169	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R181	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R182	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R193	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R230	1-216-295-00	METAL GLAZE 0 5% 1/10W	
<TUNER>			
TU101 $\Delta$	1-465-515-11	TUNER (SUF944PLL)	
<IF BLOCK>			
VIF101	1-466-065-21	IF BLOCK (IFG-395S)	
*****			
*A-1632-028-A A1 BOARD, COMPLETE			
*****			
<FILTER>			
BP1101	1-236-238-11	FILTER, BAND PASS	
CF1101	1-409-333-00	TRAP, CERAMIC (6.0MHZ)	
<CAPACITOR>			
C1101	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C1102	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C1103	1-124-907-11	ELECT 10MF 20% 50V	
C1104	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C1105	1-163-031-11	CERAMIC CHIP 0.01MF 50V	

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1106	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1107	1-124-907-11	ELECT 10MF	20% 50V
C1108	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1109	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
C1110	1-163-123-00	CERAMIC CHIP 180PF	5% 50V
C1111	1-164-157-11	CERAMIC CHIP 0.068MF	10% 25V
C1113	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C1114	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C1115	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1116	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1117	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C1118	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1119	1-137-133-11	FILM 0.15MF	5% 63V
C1120	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C1121	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1122	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1123	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1124	1-163-175-00	CERAMIC CHIP 56PF	5% 50V
C1125	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1126	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1127	1-126-101-11	ELECT 100MF	20% 16V
C1128	1-124-907-11	ELECT 10MF	20% 50V
C1129	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1130	1-126-101-11	ELECT 100MF	20% 16V
C1131	1-126-101-11	ELECT 100MF	20% 16V
C1132	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1133	1-126-101-11	ELECT 100MF	20% 16V
C1134	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C1135	1-126-101-11	ELECT 100MF	20% 16V
C1136	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V
C1137	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C1138	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1139	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1140	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1141	1-126-101-11	ELECT 100MF	20% 16V
C1142	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V
C1143	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C1144	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C1145	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1146	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1147	1-124-907-11	ELECT 10MF	20% 50V
C1148	1-126-101-11	ELECT 100MF	20% 16V
C1149	1-126-101-11	ELECT 100MF	20% 16V
C1150	1-124-907-11	ELECT 10MF	20% 50V
C1151	1-126-101-11	ELECT 100MF	20% 16V
C1152	1-126-101-11	ELECT 100MF	20% 16V
C1153	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1154	1-126-101-11	ELECT 100MF	20% 16V
C1155	1-126-101-11	ELECT 100MF	20% 16V
<CONNECTOR>			
CNA114*1	564-880-31	PLUG, CONNECTOR 3P	
CNA116*1	560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
CNA117*1	564-886-21	PLUG, CONNECTOR 9P	
CNA118*1	560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
CNA119*1	564-881-11	PLUG, CONNECTOR 4P	
<TRIMMER>			
CV1101	1-141-418-11	CAP, ADJ	

A1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<DIODE>				JR26	1-216-295-00	METAL GLAZE 0 5% 1/10W	
D1101	8-719-988-70	DIODE BB405B		JR27	1-216-296-00	METAL GLAZE 0 5% 1/8W	
D1102	8-719-988-71	DIODE BB809		JR28	1-216-296-00	METAL GLAZE 0 5% 1/8W	
D1103	8-719-400-18	DIODE MA152WK		JR29	1-216-296-00	METAL GLAZE 0 5% 1/8W	
D1104	8-719-400-18	DIODE MA152WK		R1101	1-216-039-00	METAL GLAZE 390 5% 1/10W	
D1105	8-719-914-44	DIODE DAP202K		R1102	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
D1106	8-719-105-91	DIODE RD5.6M-B2		R1103	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
D1107	8-719-400-18	DIODE MA152WK		R1104	1-216-041-00	METAL GLAZE 470 5% 1/10W	
D1108	8-719-914-44	DIODE DAP202K		R1105	1-216-005-00	METAL GLAZE 15 5% 1/10W	
<IC>				R1106	1-216-036-00	METAL GLAZE 300 5% 1/10W	
IC1101	8-759-511-88	IC TDA8732		R1107	1-216-042-00	METAL GLAZE 510 5% 1/10W	
IC1102	8-759-066-32	IC SAA7280P/M3		R1108	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
IC1103	8-759-900-02	IC SN74LS02N		R1109	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
IC1104	8-759-900-72	IC NE5532P		R1110	1-216-047-00	METAL GLAZE 820 5% 1/10W	
IC1105	8-759-900-72	IC NE5532P		R1111	1-216-041-00	METAL GLAZE 470 5% 1/10W	
IC1106	8-759-140-53	IC UPD4053BC		R1112	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
IC1107	8-759-504-22	IC TDA1543		R1113	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
<COIL>				R1115	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
L1101	1-408-411-00	INDUCTOR 15UH		R1117	1-216-084-00	METAL GLAZE 30K 5% 1/10W	
L1102	1-410-119-11	INDUCTOR 1MMH		R1118	1-216-084-00	METAL GLAZE 30K 5% 1/10W	
L1103	1-410-119-11	INDUCTOR 1MMH		R1119	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
L1104	1-408-405-00	INDUCTOR 4.7UH		R1120	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
<TRANSISTOR>				R1121	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q1101	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1122	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
Q1102	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1123	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
Q1103	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1124	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
Q1104	8-729-901-01	TRANSISTOR DTC144EK		R1125	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
Q1105	8-729-140-98	TRANSISTOR 2SD773-34		R1127	1-216-133-00	METAL GLAZE 3.3M 5% 1/10W	
Q1106	8-729-901-01	TRANSISTOR DTC144EK		R1128	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q1107	8-729-901-01	TRANSISTOR DTC144EK		R1129	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q1108	8-729-901-01	TRANSISTOR DTC144EK		R1130	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q1109	8-729-901-01	TRANSISTOR DTC144EK		R1131	1-216-182-00	METAL GLAZE 220 5% 1/8W	
Q1110	8-729-901-01	TRANSISTOR DTC144EK		R1132	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
<RESISTOR>				R1133	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JR1	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1134	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JR2	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1135	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1136	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
JR4	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1137	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
JR5	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1138	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
JR6	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1139	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
JR7	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1141	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
JR8	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1142	1-216-066-00	METAL GLAZE 5.1K 5% 1/10W	
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1143	1-216-047-00	METAL GLAZE 820 5% 1/10W	
JR10	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1144	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
JR12	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1145	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
JR13	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1146	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1147	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
JR15	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1148	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
JR16	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1149	1-216-066-00	METAL GLAZE 5.1K 5% 1/10W	
JR17	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1150	1-216-047-00	METAL GLAZE 820 5% 1/10W	
JR18	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1151	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1152	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1153	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1154	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1155	1-216-748-11	METAL GLAZE 39K 5% 1/10W	
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W		R1156	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
JR25	1-216-295-00	METAL GLAZE 0 5% 1/10W		R1157	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
				R1158	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
				R1159	1-216-025-00	METAL GLAZE 100 5% 1/10W	
				R1160	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
				R1161	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
				R1162	1-216-025-00	METAL GLAZE 100 5% 1/10W	
				R1164	1-216-234-00	METAL GLAZE 33K 5% 1/8W	
				R1165	1-216-085-00	METAL GLAZE 33K 5% 1/10W	

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D

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1642-033-A	D BOARD, COMPLETE (KV-X2552U ONLY)			C517	1-124-252-00	ELECT	0.33MF 20% 50V
	*****			C518	1-124-902-00	ELECT	0.47MF 20% 50V
*A-1642-041-A	D BOARD, COMPLETE (KV-X2952U ONLY)			C519	1-136-173-00	FILM	0.47MF 5% 50V
	*****				1-136-171-00	FILM	0.33MF 5% 50V (KV-X2552U ONLY)
4-200-001-01	HOLDER, IC						5% 50V (KV-X2952U ONLY)
4-201-023-01	SPACER, INSULATING			C520	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
*4-341-751-01	EYELET			C521	1-137-098-11	FILM	0.1MF 10% 100V
*4-341-752-01	EYELET						
*4-368-683-01	SPRING			C522	1-124-122-11	ELECT	100MF 20% 50V
<CAPACITOR>				C523	1-108-680-11	MYLAR	0.001MF 10% 100V
C002	1-163-205-00	CERAMIC CHIP	0.001MF 5% 50V	C524	1-108-798-11	MYLAR	0.0033MF 5% 50V
C003	1-124-925-11	ELECT	2.2MF 20% 50V	C525	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
C004	1-124-120-11	ELECT	220MF 20% 16V	C526	1-163-103-00	CERAMIC CHIP	27PF 5% 50V
C005	1-124-903-11	ELECT	1MF 20% 50V		1-163-101-00	CERAMIC CHIP	22PF 5% 50V (KV-X2552U ONLY)
C008	1-163-117-00	CERAMIC CHIP	100PF 5% 50V				5% 50V (KV-X2952U ONLY)
C009	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C527	1-137-098-11	FILM	0.1MF 10% 100V
C010	1-124-120-11	ELECT	220MF 20% 16V	C531	1-124-190-00	ELECT	680MF 10% 25V
C011	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
C013	1-137-098-11	FILM	0.1MF 10% 100V	C532	1-124-122-11	ELECT	100MF 20% 50V
C014	1-137-098-11	FILM	0.1MF 10% 100V	C533	1-137-096-11	FILM	0.068MF 10% 100V
C015	1-124-902-00	ELECT	0.47MF 20% 50V	C534	1-124-120-11	ELECT	220MF 20% 16V
C016	1-163-141-00	CERAMIC CHIP	0.001MF 5% 50V	C536	1-131-365-00	TANTALUM	10MF 10% 16V
C017	1-137-098-11	FILM	0.1MF 10% 100V	C537	1-124-903-11	ELECT	1MF 20% 50V
C018	1-163-127-00	CERAMIC CHIP	270PF 5% 50V				
C019	1-137-094-11	FILM	0.047MF 10% 100V	C538	1-108-680-11	MYLAR	0.001MF 10% 100V
C021	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C539	1-163-129-00	CERAMIC CHIP	330PF 5% 50V
C023	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C540	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
C024	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C592	1-124-122-11	ELECT	100MF 20% 50V
C027	1-124-910-11	ELECT	47MF 20% 50V	C593	1-163-129-00	CERAMIC CHIP	330PF 5% 50V
C030	1-163-038-00	CERAMIC CHIP	0.1MF 25V				
C031	1-163-081-00	CERAMIC CHIP	0.22MF 25V	C601 $\Delta$	1-161-964-61	CERAMIC	0.0047MF 250V
C032	1-163-081-00	CERAMIC CHIP	0.22MF 25V	C602 $\Delta$	1-161-964-61	CERAMIC	0.0047MF 250V
C033	1-163-181-00	CERAMIC CHIP	100PF 5% 50V	C603 $\Delta$	1-161-964-61	CERAMIC	0.0047MF 250V
C034	1-124-907-11	ELECT	10MF 20% 50V	C604 $\Delta$	1-125-318-11	ELECT (BLOCK)	220MF 20% 400V
C251	1-124-903-11	ELECT	1MF 20% 50V	C605	1-124-484-11	ELECT	220MF 20% 35V
C252	1-126-233-11	ELECT	22MF 20% 50V				
C253	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V	C606	1-163-137-00	CERAMIC CHIP	680PF 5% 50V
C254	1-137-098-11	FILM	0.1MF 10% 100V	C607	1-137-028-11	FILM	1MF 10% 63V
C255	1-124-636-00	ELECT	3300MF 20% 25V	C608	1-124-927-11	ELECT	4.7MF 20% 50V
C261	1-124-903-11	ELECT	1MF 20% 50V	C611	1-124-910-11	ELECT	47MF 20% 50V
C262	1-126-233-11	ELECT	22MF 20% 50V	C612	1-108-680-11	MYLAR	0.001MF 10% 100V
C263	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V				
C264	1-137-098-11	FILM	0.1MF 10% 100V	C613	1-136-539-11	FILM	0.0022MF 3% 2KV
C265	1-124-564-11	ELECT	4700MF 20% 25V	C614	1-102-030-00	CERAMIC	330PF 10% 500V
C270	1-137-035-11	FILM	0.47MF 10% 100V	C615	1-128-142-11	ELECT	1500MF 20% 25V
C274	1-137-035-11	FILM	0.47MF 10% 100V	C616	1-102-030-00	CERAMIC	330PF 10% 500V
C501	1-124-927-11	ELECT	4.7MF 20% 50V	C617	1-124-122-11	ELECT	100MF 20% 50V
C502	1-124-927-11	ELECT	4.7MF 20% 50V				
C503	1-137-049-11	FILM	0.015MF 10% 400V	C618	1-162-115-00	CERAMIC	330PF 10% 2KV
C504	1-163-121-00	CERAMIC CHIP	150PF 5% 50V	C619	1-128-320-11	ELECT	2200MF 20% 16V
C505	1-108-794-11	MYLAR	0.0015MF 5% 50V	C620	1-136-173-00	FILM	0.47MF 5% 50V
C506	1-137-102-11	FILM	0.022MF 10% 250V	C621	1-124-347-00	ELECT	100MF 20% 160V
C507	1-137-033-11	FILM	0.33MF 10% 100V	C622	1-128-320-11	ELECT	2200MF 20% 16V
C508	1-137-102-11	FILM	0.022MF 10% 250V				
C509	1-137-098-11	FILM	0.1MF 10% 100V	C623	1-124-910-11	ELECT	47MF 20% 50V
C510	1-161-959-00	CERAMIC	22PF 10% 500V	C624	1-124-122-11	ELECT	100MF 20% 50V
C511	1-108-686-11	MYLAR	0.0033MF 10% 100V	C625	1-124-360-00	ELECT	1000MF 20% 16V
C512	1-137-098-11	FILM	0.1MF 10% 100V	C626	1-124-907-11	ELECT	10MF 20% 50V
C513	1-163-125-00	CERAMIC CHIP	220PF 5% 50V	C627	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
C514	1-137-031-11	FILM	0.22MF 10% 100V				
C515	1-124-903-11	ELECT	1MF 20% 50V	C631	1-124-927-11	ELECT	4.7MF 20% 50V
C516	1-108-680-11	MYLAR	0.001MF 10% 100V	C632	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
				C633	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
				C801	1-126-105-11	ELECT	1000MF 20% 35V
				C802	1-102-030-00	CERAMIC	330PF 10% 500V
				C804	1-123-948-00	ELECT	22MF 20% 250V
				C805	1-162-114-00	CERAMIC	0.0047MF 2KV
				C806	1-137-098-11	FILM	0.1MF 10% 100V
				C807	1-106-395-00	MYLAR	0.15MF 10% 200V
				C810	1-123-024-21	ELECT	33MF 160V

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

**KV-X2552U/X2952U**  
RM-816

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C811	1-136-113-00	FILM 2MF	5% 200V	D007	8-719-982-08	DIODE MTZJ-3.9B	
C812	1-124-634-11	ELECT 1MF	20% 250V	D009	8-719-109-89	DIODE RD5.6ES-B2	
C813	1-102-212-00	CERAMIC 820PF	10% 500V	D010	8-719-921-54	DIODE MTZJ-6.2B	
C814	$\Delta$ 1-161-731-51	CERAMIC 0.001MF	10% 2KV	D011	8-719-921-54	DIODE MTZJ-6.2B	
C815	1-136-111-00	FILM 1MF	5% 200V	D012	8-719-911-19	DIODE 1SS119	
	1-136-540-11	FILM 0.82MF	(KV-X2552U ONLY) 5% 200V	D013	8-719-109-97	DIODE RD6.8ES-B2	
C817	$\Delta$ 1-136-565-11	FILM 0.015MF	(KV-X2952U ONLY) 3% 1.4KV	D271	8-719-921-88	DIODE MTZJ-13B	
	$\Delta$ 1-136-591-11	FILM 0.017MF	(KV-X2552U ONLY) 3% 1.4KV	D272	8-719-911-19	DIODE 1SS119	
C818	$\Delta$ 1-129-721-51	FILM 0.039MF	(KV-X2952U ONLY) 10% 630V	D501	8-719-911-19	DIODE 1SS119	
C819	$\Delta$ 1-161-731-51	CERAMIC 0.001MF	10% 2KV	D504	8-719-911-55	DIODE U05G	
C820	1-137-046-11	FILM 0.0082MF	10% 400V	D506	8-719-800-76	DIODE 1SS226 (KV-X2552U ONLY)	
C821	$\Delta$ 1-162-116-51	CERAMIC 680PF	10% 2KV	D508	8-719-911-19	DIODE 1SS119	
	$\Delta$ 1-162-134-51	CERAMIC 470PF	(KV-X2952U ONLY) 10% 2KV	D509	8-719-911-19	DIODE 1SS119	
C822	1-163-005-11	CERAMIC CHIP 470PF	(KV-X2952U ONLY) 10% 50V	D511	8-719-911-55	DIODE U05G	
C823	1-137-043-11	FILM 0.0047MF	10% 400V	D512	8-719-911-55	DIODE U05G	
C824	1-102-212-00	CERAMIC 820PF	10% 500V	D513	8-719-010-34	DIODE UZ-4.7BSC	
C825	1-137-102-11	FILM 0.022MF	10% 250V	D514	8-719-911-19	DIODE 1SS119 (KV-X2952U ONLY)	
C1602	$\Delta$ 1-136-516-11	FILM 0.1MF	20% 300V	D515	8-719-911-19	DIODE 1SS119 (KV-X2952U ONLY)	
C1603	$\Delta$ 1-164-246-51	CERAMIC 0.0022MF	20% 400V	D601	$\Delta$ 8-719-510-63	DIODE D4SB60L-F	
C1607	$\Delta$ 1-161-964-61	CERAMIC 0.0047MF	250V	D602	8-719-300-33	DIODE RU-3AM	
<FILTER>				D603	8-719-911-55	DIODE U05G	
CF001	1-577-364-11	VIBRATOR, CERAMIC		D604	8-719-911-55	DIODE U05G	
CF501	1-567-888-11	OSCILLATOR, CERAMIC		D605	8-719-911-55	DIODE U05G	
<CONNECTOR>				D606	8-719-300-33	DIODE RU-3AM	
D1	*1-568-881-51	PIN, CONNECTOR 6P		D607	8-719-300-33	DIODE RU-3AM	
D2	*1-568-882-51	PIN, CONNECTOR 7P		D608	8-719-300-33	DIODE RU-3AM	
D11	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D609	8-719-982-24	DIODE MTZJ-33A	
D12	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D610	8-719-300-59	DIODE CTU-12S	
D18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		D611	8-719-900-26	DIODE ERD29-08J	
D21	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D612	8-719-300-59	DIODE CTU-12S	
D22	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D613	8-719-979-85	DIODE EGP20G	
D31	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D614	8-719-979-85	DIODE EGP20G	
D32	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D616	8-719-921-54	DIODE MTZJ-6.2B	
D33	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR		D617	8-719-911-19	DIODE 1SS119	
D41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)		D618	8-719-109-89	DIODE RD5.6ES-B2	
D44	*1-568-881-51	PIN, CONNECTOR 6P		D619	8-719-982-24	DIODE MTZJ-33A	
D45	*1-568-881-51	PIN, CONNECTOR 6P		D620	8-719-800-76	DIODE 1SS226	
D51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)		D621	8-719-982-24	DIODE MTZJ-33A	
D62	*1-565-395-11	PIN, CONNECTOR 3P		D622	8-719-911-19	DIODE 1SS119	
D65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D623	8-719-911-19	DIODE 1SS119	
D66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D624	8-719-911-19	DIODE 1SS119	
D82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D630	8-719-921-91	DIODE MTZJ-15A	
D83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D801	8-719-300-33	DIODE RU-3AM	
D84	*1-580-798-11	CONNECTOR PIN (DY) 6P		D802	8-719-300-33	DIODE RU-3AM	
D88	*1-568-878-51	PIN, CONNECTOR 3P (KV-X2952U ONLY)		D803	8-719-976-64	DIODE RGP02-17	
D801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		D804	8-719-911-55	DIODE U05G	
<DIODE>				D805	8-719-911-55	DIODE U05G	
D001	8-719-109-97	DIODE RD6.8ES-B2		D806	8-719-945-80	DIODE ERC06-15S	
D002	8-719-109-97	DIODE RD6.8ES-B2		D807	8-719-945-80	DIODE ERC06-15S	
D003	8-719-911-19	DIODE 1SS119		D808	8-719-900-26	DIODE ERD29-08J	
D005	8-719-109-89	DIODE RD5.6ES-B2		<IC>			
D006	8-719-982-24	DIODE MTZJ-33A		IC001	8-759-047-60	IC SDA20560-A012	
				IC002	8-759-000-47	IC MC14051BCP	
				IC003	8-759-945-58	IC RC4558P	
				IC005	8-759-748-56	IC SDA2546	
				IC251	8-759-988-94	IC TDA2050	
					4-812-134-00	RIVET NYLON, 3.5; IC251	
				IC261	8-759-988-94	IC TDA2050	
					4-812-134-00	RIVET NYLON, 3.5; IC261	
				IC501	8-759-970-73	IC TEA2028B	
				IC502	8-759-944-57	IC TDA8170	


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— 70 —

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R046	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R270	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R047	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R271	1-216-045-00	METAL GLAZE	680 5% 1/10W
R048	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R272	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R049	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R273	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R050	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R274	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R051	1-216-041-00	METAL GLAZE	470 5% 1/10W	R500	1-216-115-00	METAL GLAZE	560K 5% 1/10W
R052	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R501	1-216-041-00	METAL GLAZE	470 5% 1/10W
R053	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R502	1-216-033-00	METAL GLAZE	220 5% 1/10W
R054	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R503	1-216-035-00	METAL GLAZE	270 5% 1/10W
R055	1-216-037-00	METAL GLAZE	330 5% 1/10W	R504	1-249-420-11	CARBON	1.8K 5% 1/4W
R056	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R505	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R057	1-216-025-00	METAL GLAZE	100 5% 1/10W	R506	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R058	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R509	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R059	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R510	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R060	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R514	1-216-033-00	METAL GLAZE	220 5% 1/10W
R061	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R515	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R062	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R517	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R063	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R518	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R064	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R519	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R065	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R520	1-216-037-00	METAL GLAZE	330 5% 1/10W
R066	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R521	1-216-025-00	METAL GLAZE	100 5% 1/10W
R067	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R522	1-215-469-00	METAL	100K 1% 1/4W
R068	1-216-174-00	METAL GLAZE	100 5% 1/8W	R523	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R069	1-216-174-00	METAL GLAZE	100 5% 1/8W	R524	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R070	1-216-198-00	METAL GLAZE	1K 5% 1/8W	R525	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R071	1-216-198-00	METAL GLAZE	1K 5% 1/8W	(KV-X2552U ONLY)			
R072	1-216-222-00	METAL GLAZE	10K 5% 1/8W	R526	1-249-409-11	CARBON	220 5% 1/4W F
R073	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R527	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R075	1-216-041-00	METAL GLAZE	470 5% 1/10W	R528	1-216-031-00	METAL GLAZE	180 5% 1/10W
R076	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R529	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R077	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R530	1-249-448-11	CARBON	1.2 5% 1/4W F
R078	1-216-198-00	METAL GLAZE	1K 5% 1/8W	R531	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R079	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R532	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R080	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R533	1-216-295-00	METAL GLAZE	0 5% 1/10W
R081	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R534	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R083	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R535	1-249-749-00	CARBON	2.2M 5% 1/4W
R084	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R536	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R085	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R537	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R086	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R538	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R087	1-216-035-00	METAL GLAZE	270 5% 1/10W	R539	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R088	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R540	1-216-013-00	METAL GLAZE	33 5% 1/10W
R093	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R541	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R094	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R542	1-216-308-00	METAL GLAZE	4.7 5% 1/10W
R095	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R543	1-249-451-11	CARBON	2.2 5% 1/4W
R096	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R544	1-247-745-11	CARBON	330 5% 1/2W
R098	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R545	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R251	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R546	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R252	1-216-039-00	METAL GLAZE	390 5% 1/10W	R547	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R253	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R548	1-216-349-00	METAL OXIDE	1 5% 1W F
R254	1-216-357-00	METAL OXIDE	4.7 5% 1W F	R549	1-216-454-11	METAL OXIDE	390 5% 2W F
R255	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R550	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R256	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R551	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R257	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R553	1-215-869-11	METAL OXIDE	1K 5% 1W
R258	1-215-869-11	METAL OXIDE	1K 5% 1W F	R554	1-216-037-00	METAL GLAZE	330 5% 1/10W
R259	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R555	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R261	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R556	1-216-025-00	METAL GLAZE	100 5% 1/10W
R262	1-216-039-00	METAL GLAZE	390 5% 1/10W	R557	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R263	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R558	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R264	1-216-357-00	METAL OXIDE	4.7 5% 1W F	R559	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R265	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R560	1-216-037-00	METAL GLAZE	330 5% 1/10W
R266	1-216-115-00	METAL GLAZE	560K 5% 1/10W	R561	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R267	1-216-077-00	METAL GLAZE	15K 5% 1/10W	(KV-X2952U ONLY)			
R268	1-215-869-11	METAL OXIDE	1K 5% 1W F	R570	1-216-045-00	METAL GLAZE	680 5% 1/10W
R269	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	(KV-X2952U ONLY)			



The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R591	1-216-047-00	METAL GLAZE	820	5%	1/10W		R826	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R592	1-216-049-00	METAL GLAZE	1K	5%	1/10W		R827	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R593	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		R828	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R594	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W		R829	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
							R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R597	1-216-041-00	METAL GLAZE	470	5%	1/10W		R1602A	1-244-945-91	CARBON	1M	5%	1/2W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F							
R600	1-249-381-11	CARBON	1	5%	1/4W		R1603A	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R601	1-216-353-00	METAL OXIDE	2.2	5%	1W	F	R1605 A1	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R603	1-216-469-11	METAL OXIDE	12	5%	3W	F	R5501	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
							R5503	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R604	1-216-025-00	METAL GLAZE	100	5%	1/10W								(KV-X2552U ONLY)
R605	1-216-081-00	METAL GLAZE	22K	5%	1/10W								
R606	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W			1-216-001-00	METAL GLAZE	10	5%	1/10W	
R607	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W								(KV-X2952U ONLY)
						(KV-X2552U ONLY)	R5504	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W		R5505	1-216-001-00	METAL GLAZE	10	5%	1/10W	
						(KV-X2952U ONLY)	R5506	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R608	1-216-488-11	METAL OXIDE	18K	5%	3W	F							(KV-X2952U ONLY)
R609	1-216-007-00	METAL GLAZE	18	5%	1/10W								
R610	1-244-941-00	CARBON	680K	5%	1/2W								
R611	1-216-015-00	METAL GLAZE	39	5%	1/10W								
R612	1-216-049-00	METAL GLAZE	1K	5%	1/10W								
R613	1-216-097-00	METAL GLAZE	100K	5%	1/10W								
R614	1-205-758-11	WIREWOUND	100	10%	10W	F							
R616	1-216-099-00	METAL GLAZE	120K	5%	1/10W								
R617	1-216-037-00	METAL GLAZE	330	5%	1/10W								
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F							
R619	1-216-073-00	METAL GLAZE	10K	5%	1/10W								
R620	1-216-081-00	METAL GLAZE	22K	5%	1/10W								
R621	1-216-077-00	METAL GLAZE	15K	5%	1/10W								
R622	1-216-073-00	METAL GLAZE	10K	5%	1/10W								
R623	1-216-081-00	METAL GLAZE	22K	5%	1/10W								
R624	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W								
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F							
R626	1-216-037-00	METAL GLAZE	330	5%	1/10W								
R628	1-216-001-00	METAL GLAZE	10	5%	1/10W								
R629	1-216-037-00	METAL GLAZE	330	5%	1/10W								
R631	1-216-465-11	METAL OXIDE	27K	5%	2W								
						(KV-X2552U ONLY)							
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W								
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F							
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W								
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W								
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F							
R651	1-216-025-00	METAL GLAZE	100	5%	1/10W								
R653	1-205-758-11	WIREWOUND	100	10%	10W	F							
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F							
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F							
R806	1-216-093-00	METAL GLAZE	68K	5%	1/10W								
R807	1-215-869-11	METAL OXIDE	1K	5%	1W	F							
R809	1-202-821-11	SOLID	1.8K	10%	1/2W								
R810	1-202-818-00	SOLID	1K	10%	1/2W								
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F							
R812	1-249-494-11	CARBON	68K	5%	1/2W								
						(KV-X2552U ONLY)							
	1-247-281-00	CARBON	51K	5%	1/2W								
						(KV-X2952U ONLY)							
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F							
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F							
R817	1-216-049-00	METAL GLAZE	1K	5%	1/10W								
R820	1-249-403-11	CARBON	68	5%	1/4W								
R821	1-247-725-11	CARBON	10K	5%	1/4W	F							
R822	1-217-778-11	FUSIBLE	1K	5%	1W	F							
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F							



REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R752	1-249-426-11	CARBON	5.6K	5%	1/4W		D5	8-719-914-44	DIODE	DAP202K			
R753	1-249-414-11	CARBON	560	5%	1/4W		D6	8-719-400-18	DIODE	MA152WK			
R754	1-249-434-11	CARBON	27K	5%	1/4W		D7	8-719-105-52	DIODE	RD3.6M-B2			
R755	1-249-405-11	CARBON	100	5%	1/4W		D9	8-719-106-17	DIODE	RD6.8M-B2			
R756	1-249-419-11	CARBON	1.5K	5%	1/4W								
R757	1-249-405-11	CARBON	100	5%	1/4W				<IC>				
R758	1-249-409-11	CARBON	220	5%	1/4W								
R760	1-249-411-11	CARBON	330	5%	1/4W		IC1	8-759-513-27	IC	MAB8461P-W208			
R761	1-249-429-11	CARBON	10K	5%	1/4W		IC2	8-759-045-54	IC	SAA5246P/E/M4A			
R762	1-247-895-00	CARBON	470K	5%	1/4W		IC3	8-759-510-49	IC	FCB61C65L-70P			
R763	1-249-429-11	CARBON	10K	5%	1/4W				<COIL>				
R764	1-249-455-11	CARBON	4.7	5%	1/4W	F							
R765	1-249-455-11	CARBON	4.7	5%	1/4W	F							
R766	1-247-753-11	CARBON	1.2K	5%	1/2W		L1	1-408-403-00	INDUCTOR	3.3UH			
R767	1-247-751-11	CARBON	820	5%	1/2W		L2	1-408-407-00	INDUCTOR	6.8UH			
							L3	1-408-407-00	INDUCTOR	6.8UH			
R768	1-215-887-00	METAL OXIDE	150	5%	2W	F	L4	1-408-407-00	INDUCTOR	6.8UH			
R769	1-212-889-00	FUSIBLE	220	5%	1/4W	F							
		<CONNECTOR>							<IC LINK>				
VM73	*1-568-878-51	PIN, CONNECTOR 3P					PS1	Δ 1-532-679-91	LINK, IC (ICP-N15)	0.6A			
VM88	*1-568-878-51	PIN, CONNECTOR 3P											
*****									<TRANSISTOR>				
*A-1645-015-A	V BOARD, COMPLETE						Q1	8-729-900-53	TRANSISTOR	DTC114EK			
	*****						Q2	8-729-920-92	TRANSISTOR	2SD2096-EF			
							Q3	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
							Q4	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
							Q5	8-729-807-87	TRANSISTOR	2SB1295-UL6			
		<CAPACITOR>					Q6	8-729-807-87	TRANSISTOR	2SB1295-UL6			
C1	1-126-101-11	ELECT	100MF	20%	16V		Q7	8-729-807-87	TRANSISTOR	2SB1295-UL6			
C2	1-163-038-00	CERAMIC CHIP	0.1MF		25V		Q8	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
C3	1-124-120-11	ELECT	220MF	20%	16V								
C4	1-163-077-00	CERAMIC CHIP	0.1MF		50V				<RESISTOR>				
C5	1-124-120-11	ELECT	220MF	20%	16V		JR01	1-216-295-00	METAL GLAZE	0	5%	1/10W	
							JR02	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C6	1-163-038-00	CERAMIC CHIP	0.1MF		25V		JR03	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C7	1-163-235-11	CERAMIC CHIP	22PF	5%	50V		JR08	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C8	1-163-235-11	CERAMIC CHIP	22PF	5%	50V		JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C9	1-163-235-11	CERAMIC CHIP	22PF	5%	50V								
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V		JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
							JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W	
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V		JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V		JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W	
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V		JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	
C14	1-124-927-11	ELECT	4.7MF	20%	50V								
C15	1-124-927-11	ELECT	4.7MF	20%	50V		JR23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
							JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W	
C16	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V		JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W	
C17	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V		JR202	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C18	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V		JR203	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C26	1-163-038-00	CERAMIC CHIP	0.1MF		25V								
C27	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		JR205	1-216-295-00	METAL GLAZE	0	5%	1/10W	
							JR206	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		JR209	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C29	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		JR210	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C32	1-163-038-00	CERAMIC CHIP	0.1MF		25V		JR212	1-216-296-00	METAL GLAZE	0	5%	1/8W	
C33	1-163-038-00	CERAMIC CHIP	0.1MF		25V								
							JR214	1-216-295-00	METAL GLAZE	0	5%	1/10W	
		<CONNECTOR>					JR215	1-216-295-00	METAL GLAZE	0	5%	1/10W	
CNV1	*1-565-393-11	CONNECTOR, BOARD TO BOARD					JR216	1-216-295-00	METAL GLAZE	0	5%	1/10W	
CNV2	*1-565-393-11	CONNECTOR, BOARD TO BOARD					JR217	1-216-295-00	METAL GLAZE	0	5%	1/10W	
							JR218	1-216-295-00	METAL GLAZE	0	5%	1/10W	
		<DIODE>					JR227	1-216-295-00	METAL GLAZE	0	5%	1/10W	
D1	8-719-105-91	DIODE	RD5.6M-B2				R1	1-218-326-11	METAL GLAZE	470	5%	1/2W	
D3	8-719-914-44	DIODE	DAP202K				R2	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
D4	8-719-400-18	DIODE	MA152WK				R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

V H1 H2

REF.NO.	PART NO.	DESCRIPTION	REMARK
R4	1-216-025-00	METAL GLAZE 100 5%	1/10W
R5	1-216-047-00	METAL GLAZE 820 5%	1/10W
R6	1-216-001-00	METAL GLAZE 10 5%	1/10W
R7	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R8	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R9	1-216-308-00	METAL GLAZE 4.7 5%	1/10W
R10	1-218-325-11	METAL GLAZE 120 5%	1/4W
R11	1-218-325-11	METAL GLAZE 120 5%	1/4W
R12	1-218-325-11	METAL GLAZE 120 5%	1/4W
R13	1-216-025-00	METAL GLAZE 100 5%	1/10W
R14	1-216-001-00	METAL GLAZE 10 5%	1/10W
R15	1-216-013-00	METAL GLAZE 33 5%	1/10W
R16	1-216-013-00	METAL GLAZE 33 5%	1/10W
R17	1-216-013-00	METAL GLAZE 33 5%	1/10W
R18	1-216-025-00	METAL GLAZE 100 5%	1/10W
R19	1-216-025-00	METAL GLAZE 100 5%	1/10W
R20	1-216-041-00	METAL GLAZE 470 5%	1/10W
R21	1-216-041-00	METAL GLAZE 470 5%	1/10W
R22	1-216-168-00	METAL GLAZE 56 5%	1/8W
R23	1-216-214-00	METAL GLAZE 4.7K 5%	1/8W
R24	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R25	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R26	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R29	1-216-121-00	METAL GLAZE 1M 5%	1/10W
R30	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R31	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R32	1-216-076-00	METAL GLAZE 13K 5%	1/10W
R33	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R34	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R35	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R36	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R37	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R38	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R39	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R40	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R41	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R42	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R44	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R46	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R47	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R48	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R49	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R50	1-216-296-00	METAL GLAZE 0 5%	1/8W

## &lt;VARIABLE RESISTOR&gt;

RV1 1-238-012-11 RES. ADJ. CARBON 1K

## &lt;CRYSTAL&gt;

X1 1-579-266-31 CRYSTAL VIBRATOR  
X3 1-577-082-11 VIBRATOR, CERAMIC\*\*\*\*\*  
\*1-638-744-12 H1 BOARD  
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## &lt;CAPACITOR&gt;

C1651 1-102-106-00 CERAMIC 100PF 10% 50V  
C1652 1-102-106-00 CERAMIC 100PF 10% 50V  
C1653 1-102-074-00 CERAMIC 0.001MF 10% 50V  
C1655 1-102-074-00 CERAMIC 0.001MF 10% 50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
<CONNECTOR>			
H1-1	*1-568-881-51	PIN, CONNECTOR 6P	
H1-02	1-568-678-11	TERMINAL BLOCK, S 3P	
H1-4	*1-568-879-51	PIN, CONNECTOR 4P	
H1-05	1-562-837-11	JACK	
H1-23	*1-568-879-51	PIN, CONNECTOR 4P	
H1-43	*1-564-512-11	PLUG, CONNECTOR 9P	
<RESISTOR>			
R1651	1-249-413-11	CARBON 470 5%	1/4W
R1652	1-249-413-11	CARBON 470 5%	1/4W
<SWITCH>			
S1651	1-571-532-21	SWITCH, TACTIL	
S1652	1-571-532-21	SWITCH, TACTIL	
S1653	1-571-532-21	SWITCH, TACTIL	
*****			
*1-638-392-11 H2 BOARD			
*****			
*4-374-987-01 GUIDE, LIGHT			
*4-381-686-01 BRACKET (B), LIGHT GUIDE			
<DIODE>			
D1651	8-719-948-31	DIODE LD-201VR	
*4-201-076-01 HOLDER, LED; D1651			
D1652	8-719-948-31	DIODE LD-201VR	
*4-201-076-01 HOLDER, LED; D1652			
D1654	8-719-948-31	DIODE LD-201VR	
*4-201-076-01 HOLDER, LED; D1654			
<CONNECTOR>			
H2-2	*1-568-882-51	PIN, CONNECTOR 7P	
<IC>			
IC1651	8-741-101-75	IC SBX1610-11	

## &lt;RESISTOR&gt;

R1662 1-249-413-11 CARBON 470 5% 1/4W

J1

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1651-018-A	J1 BOARD, COMPLETE (KV-X2552U ONLY)	*****		C1416	1-137-098-11	FILM 0.1MF	10% 100V
*A-1651-020-A	J1 BOARD, COMPLETE (KV-X2952U ONLY)	*****		C1417	1-124-120-11	ELECT 220MF	20% 16V
				C1418	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
				C1419	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
				C1425	1-124-902-00	ELECT 0.47MF	20% 50V
<CAPACITOR>				C1426	1-124-902-00	ELECT 0.47MF	20% 50V
C203	1-124-925-11	ELECT 2.2MF	20% 50V	C1427	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
C205	1-124-927-11	ELECT 4.7MF	20% 50V	C1428	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
C206	1-124-925-11	ELECT 2.2MF	20% 50V	C1429	1-163-029-11	CERAMIC CHIP 0.0047MF	50V
C207	1-124-927-11	ELECT 4.7MF	20% 50V	C1430	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C213	1-126-233-11	ELECT 22MF	20% 50V	C1431	1-126-529-11	ELECT 0.47MF	20% 50V
C214	1-137-045-11	FILM 0.0068MF	10% 400V	C1432	1-124-902-00	ELECT 0.47MF	20% 50V
C217	1-137-045-11	FILM 0.0068MF	10% 400V	C1433	1-124-122-11	ELECT 100MF	20% 50V
C218	1-137-102-11	FILM 0.022MF	10% 250V	C1436	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C219	1-137-102-11	FILM 0.022MF	10% 250V	C1437	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C220	1-108-686-11	MYLAR 0.0033MF	10% 100V	C1438	1-137-047-11	FILM 0.01MF	10% 400V
C221	1-108-686-11	MYLAR 0.0033MF	10% 100V	C1439	1-137-047-11	FILM 0.01MF	10% 400V
C222	1-137-095-11	FILM 0.056MF	10% 100V	C1440	1-124-907-11	ELECT 10MF	20% 50V
C223	1-137-095-11	FILM 0.056MF	10% 100V	C1441	1-124-907-11	ELECT 10MF	20% 50V
C224	1-137-047-11	FILM 0.01MF	10% 400V	C1442	1-137-098-11	FILM 0.1MF	10% 100V
C225	1-136-173-00	FILM 0.47MF	5% 50V	C1443	1-137-098-11	FILM 0.1MF	10% 100V
C226	1-136-173-00	FILM 0.47MF	5% 50V	C1444	1-124-910-11	ELECT 47MF	20% 50V
C227	1-137-102-11	FILM 0.022MF	10% 250V	C1445	1-102-824-00	CERAMIC 470PF	5% 50V
C228	1-137-104-11	FILM 0.033MF	10% 250V	C1446	1-102-824-00	CERAMIC 470PF	5% 50V
C229	1-137-049-11	FILM 0.015MF	10% 400V	C1501	1-124-927-11	ELECT 4.7MF	20% 50V
C230	1-137-049-11	FILM 0.015MF	10% 400V	C1502	1-124-903-11	ELECT 1MF	20% 50V
C231	1-124-902-00	ELECT 0.47MF	20% 50V	C1503	1-108-680-11	MYLAR 0.001MF	10% 100V
C232	1-124-907-11	ELECT 10MF	20% 50V	C1504	1-124-910-11	ELECT 47MF	20% 50V
C233	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1505	1-137-094-11	FILM 0.047MF	10% 100V
C234	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1507	1-108-686-11	MYLAR 0.0033MF	10% 100V
C235	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1508	1-124-903-11	ELECT 1MF	20% 50V
C236	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1509	1-124-903-11	ELECT 1MF	20% 50V
C237	1-124-902-00	ELECT 0.47MF	20% 50V	C1511	1-124-927-11	ELECT 4.7MF	20% 50V
C238	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C1512	1-137-045-11	FILM 0.0068MF	10% 400V
C239	1-126-103-11	ELECT 470MF	20% 16V	(KV-X2552U ONLY)			
C240	1-163-018-00	CERAMIC CHIP 0.0056MF	10% 50V	C1513	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C241	1-163-018-00	CERAMIC CHIP 0.0056MF	10% 50V	C1514	1-137-102-11	FILM 0.022MF	10% 250V
C242	1-163-033-00	CERAMIC CHIP 0.022MF	50V	(KV-X2552U ONLY)			
C243	1-163-033-00	CERAMIC CHIP 0.022MF	50V	C1515	1-102-117-00	CERAMIC 820PF	10% 50V
C244	1-163-033-00	CERAMIC CHIP 0.022MF	50V	(KV-X2552U ONLY)			
C245	1-163-033-00	CERAMIC CHIP 0.022MF	50V	<CONNECTOR>			
C1401	1-124-907-11	ELECT 10MF	20% 50V	CN1401	1-565-838-11	JACK BLOCK, PIN 2P	
C1402	1-126-103-11	ELECT 470MF	20% 16V	J1-41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
C1403	1-163-003-11	CERAMIC CHIP 330PF	10% 50V	J1-43	*1-564-524-11	PLUG, CONNECTOR 9P	
C1404	1-137-098-11	FILM 0.1MF	10% 100V	J1-44	*1-564-527-11	PLUG, CONNECTOR 12P	
C1405	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	J1-51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
C1406	1-137-098-11	FILM 0.1MF	10% 100V	<DIODE>			
C1407	1-124-910-11	ELECT 47MF	20% 50V	D201	8-719-110-14	DIODE RD9.1ES-B3	
C1408	1-124-122-11	ELECT 100MF	20% 50V	D202	8-719-110-14	DIODE RD9.1ES-B3	
C1409	1-126-233-11	ELECT 22MF	20% 50V	D205	8-719-110-03	DIODE RD7.5ES-B2	
C1410	1-124-907-11	ELECT 10MF	20% 50V	D206	8-719-110-03	DIODE RD7.5ES-B2	
C1411	1-124-907-11	ELECT 10MF	20% 50V	D1401	8-719-110-03	DIODE RD7.5ES-B2	
C1412	1-124-910-11	ELECT 47MF	20% 50V	D1403	8-719-110-03	DIODE RD7.5ES-B2	
C1413	1-124-910-11	ELECT 47MF	20% 50V	D1404	8-719-110-03	DIODE RD7.5ES-B2	
C1414	1-124-907-11	ELECT 10MF	20% 50V	D1405	8-719-110-03	DIODE RD7.5ES-B2	
C1415	1-137-098-11	FILM 0.1MF	10% 100V	D1406	8-719-110-03	DIODE RD7.5ES-B2	
				D1407	8-719-921-77	DIODE MTZN-10C	
				D1408	8-719-110-14	DIODE RD9.1ES-B3	
				D1409	8-719-110-14	DIODE RD9.1ES-B3	
				D1410	8-719-110-14	DIODE RD9.1ES-B3	
				D1415	8-719-110-03	DIODE RD7.5ES-B2	

J1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D1418	8-719-110-03	DIODE RD7.5ES-B2		R223	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D1419	8-719-110-03	DIODE RD7.5ES-B2		R224	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D1420	8-719-110-03	DIODE RD7.5ES-B2		R225	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D1421	8-719-110-03	DIODE RD7.5ES-B2					
D1422	8-719-110-03	DIODE RD7.5ES-B2		R226	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R227	1-216-033-00	METAL GLAZE 220 5%	1/10W
D1423	8-719-110-03	DIODE RD7.5ES-B2		R228	1-216-033-00	METAL GLAZE 220 5%	1/10W
D1424	8-719-110-03	DIODE RD7.5ES-B2		R229	1-216-075-00	METAL GLAZE 12K 5%	1/10W
D1425	8-719-110-03	DIODE RD7.5ES-B2		R230	1-216-079-00	METAL GLAZE 18K 5%	1/10W
D1426	8-719-110-03	DIODE RD7.5ES-B2					
D1501	8-719-300-33	DIODE RU-3AM		R231	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R232	1-216-073-00	METAL GLAZE 10K 5%	1/10W
D1502	8-719-911-19	DIODE 1SS119		R233	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
D1503	8-719-911-19	DIODE 1SS119		R234	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
D1504	8-719-911-19	DIODE 1SS119		R235	1-216-295-00	METAL GLAZE 0 5%	1/10W
D1505	8-719-911-19	DIODE 1SS119					
D1506	8-719-982-33	DIODE MTZJ-36D		R236	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R240	1-216-033-00	METAL GLAZE 220 5%	1/10W
D1507	8-719-911-19	DIODE 1SS119		R241	1-216-091-00	METAL GLAZE 56K 5%	1/10W
D1510	8-719-911-19	DIODE 1SS119		R242	1-216-091-00	METAL GLAZE 56K 5%	1/10W
				R243	1-216-075-00	METAL GLAZE 12K 5%	1/10W
<IC>				R244	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
IC201	8-759-013-17	IC TDA6200		R245	1-216-075-00	METAL GLAZE 12K 5%	1/10W
IC1401	8-752-053-17	IC CXA1114P		R246	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
IC1402	8-759-946-32	IC TEA2014A		R247	1-216-075-00	METAL GLAZE 12K 5%	1/10W
IC1403	8-759-140-53	IC UPD4053BC		R248	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
IC1501	8-759-942-16	IC TEA2031A					
<JACK>				R249	1-216-075-00	METAL GLAZE 12K 5%	1/10W
J1402	1-561-534-41	SOCKET 21P		R250	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
J1403	1-561-534-41	SOCKET 21P		R1400	1-216-295-00	METAL GLAZE 0 5%	1/10W
<TRANSISTOR>				R1401	1-216-023-00	METAL GLAZE 82 5%	1/10W
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1402	1-216-170-00	METAL GLAZE 68 5%	1/8W
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
Q1401	8-729-216-22	TRANSISTOR 2SA1162-G		R1403	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q1402	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1404	1-216-178-00	METAL GLAZE 150 5%	1/8W
Q1403	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R1405	1-249-434-11	CARBON 27K 5%	1/4W
				R1407	1-216-113-00	METAL GLAZE 470K 5%	1/10W
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G		R1408	1-216-089-00	METAL GLAZE 47K 5%	1/10W
<RESISTOR>							
R201	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R1409	1-216-041-00	METAL GLAZE 470 5%	1/10W
R202	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W	R1410	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R203	1-216-075-00	METAL GLAZE 12K 5%	1/10W	R1411	1-216-041-00	METAL GLAZE 470 5%	1/10W
R204	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R1412	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R205	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R1413	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R206	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R1414	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R207	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R1415	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R208	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1416	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R209	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1417	1-216-023-00	METAL GLAZE 82 5%	1/10W
R210	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1418	1-247-738-11	CARBON 82 5%	1/2W F
R211	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R1419	1-216-295-00	METAL GLAZE 0 5%	1/10W
R212	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1420	1-216-295-00	METAL GLAZE 0 5%	1/10W
R213	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1421	1-216-295-00	METAL GLAZE 0 5%	1/10W
R214	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1422	1-216-025-00	METAL GLAZE 100 5%	1/10W
R215	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1423	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R216	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R1424	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R217	1-216-077-00	METAL GLAZE 15K 5%	1/10W	R1425	1-216-045-00	METAL GLAZE 680 5%	1/10W
R218	1-216-033-00	METAL GLAZE 220 5%	1/10W	R1426	1-216-025-00	METAL GLAZE 100 5%	1/10W
R219	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R1427	1-216-001-00	METAL GLAZE 10 5%	1/10W
R220	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R1428	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R221	1-216-041-00	METAL GLAZE 470 5%	1/10W	R1429	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R222	1-216-041-00	METAL GLAZE 470 5%	1/10W	R1430	1-216-170-00	METAL GLAZE 68 5%	1/8W
				R1431	1-216-041-00	METAL GLAZE 470 5%	1/10W
				R1432	1-216-041-00	METAL GLAZE 470 5%	1/10W
				R1433	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R1434	1-249-393-11	CARBON 10 5%	1/4W F
				R1437	1-249-434-11	CARBON 27K 5%	1/4W
				R1440	1-216-045-00	METAL GLAZE 680 5%	1/10W
				R1441	1-216-045-00	METAL GLAZE 680 5%	1/10W
				R1442	1-216-089-00	METAL GLAZE 47K 5%	1/10W

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1443	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R1444	1-216-033-00	METAL GLAZE 220 5%	1/10W
R1445	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R1446	1-216-033-00	METAL GLAZE 220 5%	1/10W
R1447	1-216-033-00	METAL GLAZE 220 5%	1/10W
R1448	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1449	1-216-023-00	METAL GLAZE 82 5%	1/10W
R1452	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R1453	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R1454	1-216-180-00	METAL GLAZE 180 5%	1/8W
R1455	1-216-180-00	METAL GLAZE 180 5%	1/8W
R1457	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1459	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1460	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R1461	1-216-190-00	METAL GLAZE 470 5%	1/8W
R1462	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R1463	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R1464	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R1465	1-216-023-00	METAL GLAZE 82 5%	1/10W
R1466	1-216-033-00	METAL GLAZE 220 5%	1/10W
R1467	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1468	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1469	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1470	1-216-025-00	METAL GLAZE 100 5%	1/10W
R1471	1-216-023-00	METAL GLAZE 82 5%	1/10W
R1472	1-216-023-00	METAL GLAZE 82 5%	1/10W
R1473	1-216-023-00	METAL GLAZE 82 5%	1/10W
R1474	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R1476	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R1477	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R1478	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R1480	1-216-190-00	METAL GLAZE 470 5%	1/8W
R1482	1-216-178-00	METAL GLAZE 150 5%	1/8W
R1483	1-216-178-00	METAL GLAZE 150 5%	1/8W
R1484	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1485	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1486	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1487	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R1488	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R1489	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R1501	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R1502	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R1503	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R1504	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R1505	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R1506	1-216-113-00	METAL GLAZE 470K 5%	1/10W
R1509	1-216-105-00	METAL GLAZE 220K 5%	1/10W
R1510	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R1511	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R1512	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R1513	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R1514	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R1515	1-216-117-00	METAL GLAZE 680K 5%	1/10W
R1516	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R1517	1-216-033-00	METAL GLAZE 220 5%	1/10W
R1519	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R1520	1-216-113-00	METAL GLAZE 470K 5%	1/10W
	1-216-111-00	METAL GLAZE 390K 5%	1/10W
R1521	1-216-214-00	METAL GLAZE 4.7K 5%	1/8W
R1550	1-216-349-00	METAL OXIDE 1 5%	1W F

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1556	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
<VARIABLE RESISTOR>			
RV1501	1-238-023-11	RES, ADJ, CARBON 470K	
RV1502	1-238-016-11	RES, ADJ, CARBON 10K	
RV1503	1-238-017-11	RES, ADJ, CARBON 22K	
RV1504	1-238-012-11	RES, ADJ, CARBON 1K	
RV1505	1-238-023-11	RES, ADJ, CARBON 470K	
RV1506	1-238-017-11	RES, ADJ, CARBON 22K	
RV1507	1-238-009-11	RES, ADJ, CARBON 220	
RV1508	1-238-016-11	RES, ADJ, CARBON 10K	
RV1509	1-238-023-11	RES, ADJ, CARBON 470K	
*****			
MISCELLANEOUS			
*****			
△	1-460-091-11	COIL, DEGAUSS (KV-X2552U ONLY)	
△	1-426-535-11	COIL, DEGAUSSING (KV-X2952U ONLY)	
△	1-451-311-21	DEFLECTION YOKE (Y25FXA) (KV-X2552U ONLY)	
△	1-451-313-21	DEFLECTION YOKE (Y29FXA) (KV-X2952U ONLY)	
	1-452-032-00	MAGNET, DISK; 10MM φ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
△	1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308) (KV-X2952U ONLY)	
	1-544-727-11	SPEAKER (7.5X13CM)	
△	1-590-762-11	CORD, POWER (WITH PLUG)	
V901	△ 8-733-231-05	PICTURE TUBE (A59JWC61X) (KV-X2552U ONLY)	
	△ 8-733-831-05	PICTURE TUBE (A68JYL61X) (KV-X2952U ONLY)	
*****			
ACCESSORIES AND PACKING MATERIALS			
*****			
PART NO.	DESCRIPTION	REMARK	
	4-200-874-61	MANUAL, INSTRUCTION (ENGLISH)	
*4-034-981-01	CUSHION (UPPER) (ASSY) (KV-X2552U ONLY)		
*4-200-876-01	CUSHION (UPPER) (ASSY) (KV-X2952U ONLY)		
*4-035-035-01	CUSHION (LOWER) (ASSY) (KV-X2552U ONLY)		
*4-200-879-01	CUSHION (LOWER) (ASSY) (KV-X2952U ONLY)		
*4-035-040-01	INDIVIDUAL CARTON (KV-X2552U ONLY)		
*4-200-884-01	INDIVIDUAL CARTON (KV-X2952U ONLY)		
*4-380-340-01	BAG, PROTECTION (KV-X2552U ONLY)		
*4-384-027-01	BAG, PROTECTION (KV-X2952U ONLY)		

REMOTE COMMANDER

1-465-796-11 CONTROL UNIT, REMOTE (RM-816)  
4-031-670-01 COVER, POCKET (FOR RM-816)